JPRS-UAG-85-027 25 October 1985

USSR Report

AGRICULTURE

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USSR REPORT

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PRECIPITATION, MOISTURE SITUATION FOR 1985 CROPS IN UKRAINE

Kiev SIL'S'KI VISTI in Ukrainian 26 May 85 p 1

[Article by V. Pysarenko, candidate of agricultural sciences, deputy director of the Ukrainian Scientific and Research Institute for Irrigation Crop Farming, and D. Yokych, candidate of agricultural sciences, senior scientist: "Let Us Make Each Irrigated Hectare High Yielding: What Irrigation Specialists Should Know"]

[Text] In the steppe oblasts of Ukraine hot and dry weather has caused significant consumption of soil moisture by agricultural crops on irrigated fields. In order to do away with moisture shortage, and to secure normal plant development, we should lead round-the-clock irrigation of fields by using all irrigating machines. Agricultural and irrigation organs should demand from each farm strict adherence to daily watering schedules.

If weather conditions do not improve in the next several days, following completion of the first watering of winter wheat, the second watering should be begun by using 500 to 600 cubic meters per hectare where ground water level is very deep, and using 300 to 400 where the level is close to the top. It is necessary to complete the first watering of perennial grasses from previous years of sowing. Due to the weather conditions and the low level of soil moisture supply, even a one day delay in watering will cause a reduction in green mass yield by 20 to 30 quintals per hectare.

In the southern areas first mowing of perennial grasses has already begun. For the alfalfa to grow quickly, postmowing watering should be set-up right after clearing the field by using 600 to 650 cubic meters of water per hectare. Prior to watering, soil deration [shchilyuvannya] to a depth of 40 to 50 centimeters should 1: performed.

The area sowed with spring alfalfa, under the protection of spring barley, the presence of moisture should continually be tested in the upper 5 to 10 centimeter layer of soil; if it dries out, then watering should be performed by using 200 to 250 cubic meters per hectare. During barley's leaf formation stage, a second watering should be planned using 500 to 600 cubic meters of water.

Due to the drying out of the sowing layer of soil, no feed or sugar beets, tomatoes, cucumbers or any other crops were obtained from polots at some farms.

On such fields sprout inducing watering should be done by using 150 to 200 cubic meters of water per hectare; then, after sowing, tilling should be done at low speed by using light harrows or by sectional harrows transverse to the plant rows. When necessary, watering should be repeated to assist sprouting. If due to partial or complete loss of seed it is decided to reseed the field, then pre-sowing irrigation should be carried out with 250 to 390 cubic meters of water per hectare.

High temperatures have a negative effect on potato growth. Therefore, at plots that have sprouted watering should use 350 to 400 cubic meters per hectare prior to bud-setting, and then tilled between rows. During late planting periods, in order to obtain favorable yields, it is necessary to water using 250 to 300 cubic meters per hectare.

Seedling tomatoes, peppers and eggplants planted during optimal periods of planting should be watered with 300 to 350 cubic meters, with simultaneous repair of the plantings. For high survival results of late-season cabbage a preplanting watering should be performed, with 300 to 350 cubic meters of water per hectare. For early crobage planting weekly watering with 300 to 400 cubic meters per hectare should be done followed by mandatory hilling of the plants.

At onion and carrot plantings, for the stimulation of normal development of the plants' root system, the watering norm is only 200 to 250 cubic meters per hectare.

At the end of May it may be necessary to water sugar and feed beets planted during the optimal period. Where the plants grow thickly, watering should use 500 to 600 cubic meters. During periods of high air temperatures the development of corn plants is stimulated and cause reduction in soil moisture at a faster rate than during regular years. Therefore, in the far southern parts, there should be plans to water the corn during the first ten days of June, using 500 to 600 cubic meters per hectare where the ground water is deep, and 300 to 400 cubic meters per hectare where it is close to the surface. The plot where corn is to be grown should be watered first, in order to produce silage.

In order to organize proper irrigation, it is necessary to improve monitoring of soil moisture content and the quality of watering at each irrigated field. Watering time and watering levels should be set based on the soil moisture indicators.

12868 CSO: 1811/041

TAJIKISTAN AGRICULTURAL PROBLEMS NOTED

LD272355 Moscow Domestic Service in Russian 1300 GMT 27 Sept 85

[Excerpts] In the country's cotton fields. Our commentator Aleksandr Ruvinskiy has this to say:

Up-to-the-minute data which we have been given at the USSR Ministry of Agriculture shows that the high rates that have been built up by the cotton-growers since the beginning of the campaign continue to be maintained despite some deterioration in the weather. Altogether more than 2.5 million metric tons of raw cotton has reached the procurement points already. Machines alone have now picked twice as much cotton as had been picked by the end of September last year. The cotton-growers of Azerbaijan, for example, have one-tenth of their harvest to bring in for their plan to be fulfilled. In Uzbekistan the picking plan has been fulfilled almost to the extent of one quarter.

There are still some reserves that are not yet being used, however. Thus, checks that have been carried out in Tajikistan have shown that at a time when the harvesting campaign is in full swing one out of six cotton-picking machines in the republic is faulty and cannot take part in the work. There are many places where the equipment is not being used on two shifts, and this is dragging out the harvest. And there is another important problem which is still being solved too slowly—in many rayons large quantities of labor are brought in from outside, from industrial enterprises, organizations and educational establishments. Again in Tajikistan, help in carrying out the harvest is now being given by more than 300,000 people, while not everyone among the able bodied population of the kolkhozes and sovkhozes is taking part in the harvest. Apart from the other negative phenomena this leads to a noticeable rise in the prime cost of the picked cotton.

MAJOR CROP IMPROVEMENT IN DROUGHT AREAS

Kiev SIL'S'KI VISTI in Ukrainian 5 May 85 p 2

[Article by M. Myloserdov, doctor of agricultural sciences, director of the Prysyvaska Agricultural and Forest Land Reclamation Research Station: "By Caring for the Field--You Care for the Yield: How to Decrease the Damaging Effect of Droughts in the South of the Republic" under the rubric: "Special Attention to Grain Production"]

[Text] Ukrainian Republic's southern and eastern parts are often affected by severe drought. Recently they occurred two years in a row, for example in the years 1975-1976, 1981-1982 and in 1983-1984. Winter wheat was then growing very well on clean fall fallows. Fallows serve as outposts against the elements. Where fallows are being well taken care of and improved, they provide a generous yield. Thus, the Prydonetskii STate Farm's fallows (Kuibyshev Rayon in the Zaporozhye Oblast) last year had a yield of 60.0 quintals of grain per hectare of land, while the Collective Farm imeni Commissar Bakhturov, of the Ivanivskii Rayon, and the Collective Farm Avanhard of the Nyzhnosirohozii Rayon, both in the Kherson Oblast had almost 50 quintals.

When fallows are not given necessary attention, then the yield per hectare is 18 to 20 percent lower.

The various ranges of yield obtained during dry years from the clean fall fallows are explained by various degrees of moisture that the soil holds until the beginning of winter sowing. In order to stress the special significance of good soil tilling for improving the moisture content, it should be remembered that during summer fallow field not only loses precipitation, but that during certain years the storage of fall and winter moisture is also lost. Based on many years of observation at research stations in southern Ukraine, its unproductive losses during fallowing from one and a half meter of soil layer were between 204 and 220 millimeters. Nevertheless, there was one and a half times more of moisture stored in the clean fall fallow before the sowing of winter wheat, than there was following the unfallowed predecessor crops.

Winter wheat yield after fallowing also depends on the type of wheat; last year the best yield received in the southern oblasts was from the Obriy variety.

According to the figures of the Novotroyitska and Nyzhiniosirohozka Strain Testing Station of the Kherson Oblast, the productivity of Obriv was 47 to 48 quintals per hectare; this was by 5 to 8 quintals more than from the Bezosta-1 strain. The Crimean State Farm Saky, on 113 hectares of land produced 61 quintals of grain per hectare, while the Bezosta-1 strain, on 513 hectares produced 46 quintals per hectare. However, it should be noted that the Obriy wheat strain is not winter resistant, and during prolonged low temperatures it may be killed. In order to prevent any mistakes, one should take into account soil characteristics and weather patterns. On clean fall fallow, several strains should be sowed; Dniprovska-846, Bezosta-1, Obriy, Odeska Napivkarlykova (Semi-Dwarf) and Odeska-51.

In the Kherson area, in order to provide the most abundant wheat yield from the unfallowed predecessor crops, more and more often the following pulse crops are sowed, thus reducing sowing following stubble to a minimum. This approach has immediately improved the preservation quality; there is no mass dying off due to dross or soil dryness. With the changeover to surface soil cultivation after peas, the predecessor crop yield approximates that of fallow field yields. For example, in the Kherson and Zaporozhye Oblasts winter wheat yield during the 8th Five Year Plan was approximately 23 quintals, during the 9th it was 27.7, and in the 10th--30 quintals; this is respectively 32, 20 and 16 quintals lower than for clean fall fallow.

In Crimea, in order to have thicker sprouts they practice post-seeding rolling of winter wheat, as well as check-row sowing, and this raises the yield by 3.4 to 4 quintals. It should be noted that wheat sowing on fallows by means of stubble seed drills is justified only during the years when it is impossible to gather the seeds with disk seed drills, because of the high dryness of the upper layer of soil. In all the other cases—on fallows or non-fallow predecessors—sowing by means of disk seed drills provides for high yield and low weed growth on the sowed area.

During dry periods, clean fall fallows allow for winter sowing at optimal dates, and for effective application of fertilizer, in order to increase technological qualities of the grain, and to take fuller advantage of the potential possibilities of new intensive strains. Due to the implementation of soil conservation technology, the role of fallows is increasing markedly. Such a field may be considered as insurance which allows for steady yields without being dependent on weather conditions.

Analysis of data over many years shows that in order to avoid the loss of wheat during wintering, one should completely stop distributing it following stubble predecessors, and should hold sowing on clean fall fallows in those regions where the precipitation is at least 250 millimeters where there is up to 60 percent of vegetation, 350 millimeters for areas with 50 percent vegetation, and 400 millimeters where there is up to 30 percent of vegetation. In the dry areas of southern Ukraine the percentage of fallow in relation to the plowed land should be at least 16, and in smartweed [girchak--probably polygonum hydropiper] infested fields it should be 19 to 20 percent.

Not taking into account the importance of clean fall fallow to stabilize winter wheat crops makes it most susceptible to wind erosion. During more than a year's time it is subjected to the sun, to high and low temperatures as well as to

strong winds, as a result of which soil clumps are destroyed, pulverized and dehydrated. Such fallows, especially those that are raised by plough, become areas where centers of wind erosion develop, and which are then carried over to the neighboring fields by covering more and more territory and by turning into dust storms. For reliable safeguarding of fields, the following conservation method is applied for soil preparation: stubble as well as stalks of sunflowers and other row crops are kept on the ground.

After growing sunflowers a disk-type stubble mulcher is used, which breaks up the stalks. After fertilizer is applied, the land is tilled in two directions by means of disk harrows. While using this method the fertilizer is worked into the soil; the whole field is covered by an equal layer of crushed stalks, and thus an anti-erosion layer is created. In October the soil is then tilled deeply (25 to 27 centimeters) with sweeps.

If fallows follow stalk crops, then fields are tilled by the outer layer method and are kept in a clean state. During late fall manure is applied and is worked into ground by heavy disk harrows; then the soil is deeply cultivated with sweeps.

Clean fallows turned up in the fallow that are tilled by means of the soil preservation method, do not lower the yield of winter wheat, but even increase it in comparison with clean fall fallow which is prepared by the usual method. Data from the Novoodeska Strain Testing Station, in the Nikolaev Oblast, prove that clean fall fallow then tilled by the soil preservation method, has produced on the average 56.6 quintals per hectare over a period of eight years; this is 5.7 quintals above the yield received from fallows prepared by the usual method.

In the south of the Republic clean fall fallows should provide retention of moisture in the soil, for an even growth and for a high yield (if the quality of grain is high) and for resistance to wind erosion. This may be achieved only by creating zones of shelter belts in the fields that are used for crop rotation, and for soil tilled by sweeps. Based on data from the Prysyvaska Agricultural and Forest Land Reclamation Research Station, over a six-year period following regular tilling of clean fall fallow, the yield was, on the average, 28 quintals of winter wheat per hectare, while during six more favorable years it was 38.7 quintals. Due to the comprehensive efforts of soil preservation methods in preparing clean fall fallows as well as use of shelter belts, the yield grew by 19 percent during dry years, and by 15 percent during wet ones.

In the steppe zone of Ukraine the changeover to an industrial method of growing winter wheat on improved, treated clean fall fallows tilled by the soil preservation method will provide, jointly with forest land reclamation facilities, the prerequisites for obtaining high yields of good quality grain.

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CSO: 1811/041

SNOW RETENTION METHODS DISCUSSED

Sverdlovsk URALSKIYE NIVY in Russian No 2, Feb 85 p 31

[Article: "How to Accumulate Snow on Fields"]

[Text] Snow fell early. After thawing and refreezing, it formed a fresh crust which would be senseless to break. The forecast calls for temperatures falling down to 25...30 degrees. Blizzards are possible. In view of this it is essential to boldly and promptly perform snow accumulation work on open fields. Because of the drought, windbreak strips were not made on fields in southern rayons. It is very dangerous to expose winter wheat and perennial grasses by using snowplow ridgers.

The bitter lessons of previous years have shown that it is not permissible to destroy the crust on freezing and windy days. This will only help blow the broken snow from fields to forests and gulches.

Another method for accumulating snow must be used. When there are abundant snow falls on warmer days, snow packers and rollers should be used. Units equipped for snow packing should be standing ready for work at the time of the snow fall. Snow ridgers can be used only for repeated work on accumulated cover to form the needed large snow ridges.

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UDC 632.9:633.1

PEST MANAGEMENT SYSTEM FOR SOUTHERN URALS SPRING WHEAT

Moscow ZASHCHITA RASTENIY in Russ' an No 6, Jun 85 p 33

[Article by A. Ye. Chumakov, manager, Phytopathology Department, VIZR [All-Union Plant Protection Institute], V. P. Lukhmenev, docent, Orenburg SKhI [Agricultural Institute], A. I. Polishchuk, chief, Orenburg Plant Protection Institute, V. A. Nemkov, assistant, Orenburg SKhI: "System for the Protection of Spring Wheat in the Southern Urals"]

[Text] Workers on fields in the southern Urals are called upon to make a significant contribution to increasing grain production. This region (Kurgan, Orenburg and Chelyabinsk oblasts) raises about 10 percent of the gross harvest of grain and 10-14 percent of the commercial grain, including 15-16 percent of the wheat produced in the republic.

However, grain yields, gross harvests and quality are being reduced by numerous diseases, pests and weeds. These include widespread ordinary root rot, various forms of smut and in wet years, rust and powdery mildew, chinch bug, grass fly [zlakovaya mukha], grain and stubble sawfly, wild oats, suckering weed and many others.

According to data from the plant protection station and the Kurgan SKhI, wheat yields in Orenburg Oblast are reduced 1-3 percent by loose smut. Every year root rot appears on wheat in Kurban and Orenburg oblasts.

Seed raising in the region is seriously damaged by the "black germ" ["cherniy zarodysh] of seeds caused by helminthospore, alternariya, fusaria and penitsillium fungi. A study of wheat from the southern, central and eastern rayons of Orenburg Oblast during 1983-1984 showed that seeds in some batches were quite extensively damaged by "black germ." The germination rates of Kharkov 46 and Saratov 42 wheat were reduced.

The most harmful pest in Orenburg Oblast is the chinch bug, which is found everywhere here, but especially in the southern and central rayons, where its numbers during grain ripening often reach 5-11 individuals per square meter, and grain damage reaches 5 percent. This is one reason for reductions in gluten quality.

Grain cutworms [Agrotis] are widespread in the southern Urals, the number of larva reaches 5-50 per ear head. In years with warm and dry springs grain is damagedby the grain band flea [khlebnaya polostaaya bloshka] [Sminthurus hortensis], the numbers of which frequently exceed the economic threshold.

The grain stubble sawfly [Cephus cinctus] causes damage in the eastern virgin land regions of the Orenburg area. Every year in the south and east damage is caused by the locust [nestadnyye saranchovyye]. From 5,000 to 20,000 hectares of agricultural land are tilled in the struggle against it. The wheat thrips is found everywhere in the southern Urals. For the southern Urals as a whole, in some years there are considerable shortfalls in wheat harvests due to pests, diseases and weeds.

Wheat losses from pests can only be reduced by introducing a scientifically based system of crop production, of which integrated pest management is a component part.

The proposed system is for wheat raised by intensive technology for nonirrigated crop production. The recommended methods for fighting pests were developed with consideration given to the economic thresholds for pests and were calculated to be highly effective and have a minimal environmental impact. The measures are for the main periods of wheat development, using accepted technology and recommended crop rotations. Elements of the system were tested on farms in Orenburg, Chelyabinsk and Kurgan oblasts, rayons in northern Kazakhstan and West Siberia. It is expected that the system will increase wheat yields by 15-20 percent.

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MOSCOW CS ON GRAIN HARVESTING, SOME LAGS NOTED

LD210418 Moscow Domestic Service in Russian 0204 GMT 19 Sep 85

[Text] Harvesting rates on the fields of the country's eastern regions have risen noticeably in recent days. This is borne out by data from the USSR Central Statistics Administration received by the editorial staff. For example, during the the last week in Western Siberia grains have been harvested on areas three times greater than in the previous week. In the entire country, grain crops have been reaped on 97.5 million hectares.

However, harvesting rates are not sufficiently high everywhere. In Eastern Siberia there are quote a number of farms which still have to carry out a substantial amount of work. Harvesting is going slowly in Buryat ASSR and Irkutsk Oblast. There is much unharvested grain still in Kamerovo Oblast, too.

At the same time as grain harvesting is underway, sugar beet lifting has started on Altay collective and state farms. Mechanizers in Kazakhstan are carrying out rice and grain maize threshing. The latter crop has also been harvested on more than 250,000 hectares in Uzbekistan.

Harvesting of potatoes and vegetables is going more slowly than in past years on the country's farms. Stocks of fodders for the forthcoming overwintering are being replenished. The plan for laying-in of hay had been 92 percent fulfilled by the middle of September, and the plan for laying-in of haylage by 116 percent. Mass silaging is underway everywhere. The quality of fodders which have been stored is considerably higher than in the previous years, specialists note.

SELSKAYA ZHIZN HIGHLIGHTS HARVESTING SHORTCOMINGS

PM101226 Moscow SELSKAYA ZHIZN in Russian 30 Aug 85 p 1

[Editorial: "Accelerating the Pace of the Harvesting!"]

[Excerpts] Harvesting in the grain fields has reached its height. By 26 August grain and pulse crops (excluding corn) had been cut on 63.6 million hectares and threshed on 58 million hectares. That is 52 percent of the sown area. As is apparent from these statistics, there is still a tremendous amount of work for the farmers to complete. And there is less and less fine weather left. That is why the producivity of all mowing machines, combines, motor vehicles, and tractors must be sharply increased now and why every crew must seek to overfulfill the shift and daily targets for output and threshing and to achieve excellent work quality.

The harvesting of grain crops is nearing completion in Volgograd, Ryazan, Orel, and Kuybyshev Oblasts and the Mordovian ASSR. Here many farms are making wide use of the duty-shift method of combine operation, and experienced machine operators are working side by side with young drivers and helping them to achieve high indicators in cutting and threshing.

There are several examples of a genuinely solicitous state-minded attitude to harvesting and grain procurement. But there are also instances of another kind. In August there were warm sunny days, but some kolkhozes and sovkhozes took a long time to bestir themselves, made no haste with the harvesting, and dragged it out until the fall. Thus, by the start of the last 5-day period grain and pulse crops had been harvested on a mere 11 percent of the sown area in Kostroma Oblast, 14 percent of the sown area in Sverdlovsk Oblast, 14 percent in Yaroslavl Oblast, 20 percent in Vologda Oblast, 20 percent in Perm Oblast, 21 percent in Novogorod Oblast, 23 percent in Ivanovo Oblast, and 29 percent in Pskov Oblast. Many farm leaders and specialities and agronomists here are not imbued with a sense of responsibility for the state of affairs and fail to promptly eliminate shortcomings in the harvesting and transportation of grain and other urgent tasks, and party organizations are not resolutely putting a stop to manisfestations of indifference and complacency.

It is very important now to carefully investigate the progress of the harvesting of grain and other crops on every kolkhoz and sovkhoz, to speed it up considerably, to enlist extra material and human resources for this purpose, and to create the conditions for highly productive work by machine operators.

While stepping up the pace of the harvesting it is necessary at the same time to deliver the grain without delay to the elevators and reception centers on the basis of plans and pledges. The observance of this first precept of the graingrower has always been a matter of honor for every kolkhoz, sovkhoz, rayon, oblast, kray, and republic. This year there are sufficient examples of efficient organization by the grain procurement workers and of a state-minded approach to replenishing the country's food resources. Many kolkhozes and sovkhozes in Azerbaijan and Voroshilovgrad, Lvov, Rovno, why, and Ivano-Frankovsk Oblasts have overfulfilled the plans for grain procurements.

At the same time a number of places are being tardy in selling grain. Recently, only 10,000-12,000 metric tons of grain a day have been delivered to the elevators by farms in Penza Oblast, although another 300,000 metric tons must be transported here in order to fulfill the plan. The flow of grain from kolkhozes and sovkhozes in Kursk, Tambov, Voronezh, and other oblasts has sharply decreased. Some party committees have tolerated shortcomings in grain procurements, are failing to halt manifestations of parochialism, and are treating leniently farm leaders and agronomists who fail to display real concern for the fulfillment of the plan.

This year the regions of Siberia, the Urals, and North Kazakhstan are called on to play an exceptional role in replenishing the state's grain resources. Quite a good harvest has been grown here, but it is late and it will be difficult to gather it. For this reason party committees and soviet and agricultural organs are called on to step up organizational and political work directly at kolkhozes, sovkhozes, and elevators so as to mobilize all labor collectives' forces to carry out the harvesting and grain procurement in a very short space of time and without losses and to unconditionally fulfill and overfulfill the plans for the sale of grain to the state. Ministries and departments must promptly examine and take the necessary decisions on all harvesting problems which arise in the eastern regions.

Procurements for state resources of strong, valuable, and durum wheat and improved marketability of all food crops must be objects of special concern. Farmers in the Kuban, the Don, Kabardino-Balkaria, and the Crimea have coped quite well with deliveries of high-quality grain. But the overall percentage of procurements is still low. It is the duty of farmers in the Volga region, Siberia, the Urals, the Ukraine, Belorussia, and other economic regions to lay in store in state granaries as much high-quality grain as necessary for food purposes. It is very

important to strictly observe the range of products delivered. This year farms have the opportunity to increase procurements of peas, buckwheat, millet, rye, corn grain, rice, vegetables, and potatoes. All this must be received on time, processed, and laid in store so as to guarantee normal food supplies to the population.

The successful carrying out of the whole package of fall agricultural tasks is a very important economic and political task in the competition to fittingly greet the 27th CPSU Congress. The gathering in full of all the harvest grown, its safekeeping, and the fulfillment of product procurement plans will be a fitting contribution by rural workers to realizing the targets of the 5-year plan.

AGRICULTURAL DEVELOPMENTS FOR 5-28 SEPTEMBER REPORTED

LD060729 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian 5-28 September. Times of broadcasts are given in parentheses at the end of each item and are in GMT.

5 September

Collective and state farms in Kazakhstan are continuing fodder procurement. To date, 130.5 million tons of hay, around 5 million tons of haylage, and 240,000 tons of vitamin grass meal have been laid in for public stock-breeding. According to all major indicators, last year's results have been surpassed. (0130)

Kurgan Oblast: corn-for-silage harvest has started; together with sunflower fodder crops, the crop occupies more than 250,000 hectares. (0200)

Kuybyshev farms are completing the buckwheat and millet harvest today and 800,000 quintels of grain have been threshed here this year. (0400)

Omsk Oblast farms have laid in more than 1.1 million tons of haylage. (0400)

The Tajik rice harvest has started. (0400)

In Buryatia the first tons of grain have been sold to the state. Because of the difficult weather conditions, the harvest started later than usual, but about 500,000 tons of grain are going to be harvested in the republic and the grain sales plan will be fulfilled. (0900)

Tyumen Oblast farmers have delivered to procurement points to date 30,000 tons of winter rye in excess of the annual plan, despite bad weather. The 5-year plan for this crop has also been overfulfilled. (1100)

The sugar beet harvest has begun in Penza Oblast. (1100)

Farmers are harvesting in complex conditions in Omsk Oblast. Rates of work are being held back by rains. To date grains have been threshed from the fields from an area exceeding 400,000 hectares, one-fifth of the area sown to grains there. (1530)

Chimkent Oblast farms today began harvesting corn for grain. This year Kazakhstan's corn growers plan to gather and sell to the state 25 million poods of grain. (1530)

The farms of Udmurt ASSR have completed the sowing of winter crops. Almost the whole area of 340,000 hectares has been sown to regionalized varieties of rye. The winter crops areas in the autonomous republic that are cultivated using intensive technological techniques have increased by 50 percent. (1904)

Stavropol Kray is to sow 1.67 million hectares to winter cereals. (1950)

Tajikistan has picked 50,000 tons of cotton so far. More than half of this is thin-fibred cotton. (2230)

6 September

The last combines are leaving the fields of Tula Oblast today. (0400)

The sugar beet harvest began this morning in Kursk Oblast. (0400)

SELSKAYA ZHIZN reports that the farms of Azerbiajan have fulfilled more than 80 percent of their plans for the accumulation of coarse and succulent fodders; those of Lithuania 92 percent; those of Tajikistan and Estonia 76-77 percent. The farms of Vologda, Vladimir, Kaluga, Kostroma and Yaroslavl Oblasts of the RSFSR, and of Kustanay, North Kazakhstan and Tselinograd Oblasts of Kazakhstan are near to fulfilling their plans for fodder procurements. However, many collective and state farms in Sverdlovsk, Omsk, and Kurgan Oblasts have laid in less than half of the required quantity of fodder. (0500)

In Orenburg Oblast harvesting is under way on the final 200,000 hectares. (1400)

Harvesting of beets on over 60,000 hectares has begun in Altay. (2005)

The last combines are leaving the fields in Tula Oblast. (2304)

7 September

Potato picking has started in the Mari chernozem zone. (0400)

Grain crops have been cut on half of their area in Kurgan Oblast. Sunny weather here in the past few days has speeded harvesting. (0600)

Mass potato lifting has begun in Ryazan Oblast where the crop occupies almost 93,000 hectares. (0600)

The weather in the Altay is beginning to deteriorate. The machine operators are working as hard as possible, making use of every period of fine weather. Grain in the kray has been cut on 2 million hectares, almost half of the grain crop. Strong and hard varieties of wheat are coming in from the fields where intensive technology was used. (0800)

Lifting of potatoes began today, several days earlier than usual, on many farms in Moscow Oblast. They plan to gather the crop before 25 September and sell 725,000 tons to the state. (1530)

8 September

Harvesting of corn for grain has started in Odessa Oblast on more than 250,000 hectares. (0100)

Farmers of the Chechen-Ingush ASSR are ready for sowing winter wheat, which will be grown here according to intensive technology on 20,000 hectares. (0100)

(Khuden Alambergenov) reports on use of lasers on rice fields of Karakalpakia. Use of a laser system which is mounted on scrapers for grading paddies has resulted in higher yields and in economies of water and labor. It is planned to implement the laser equipment on 50 trucks in 10 teams. (0100)

Over 230,000 tons of grain have already been sold to the state in Chuvashia. Now the potato and vegetable harvest has begun in the republic. (0204)

The first 100,000 tons of cotton will be harvested today in Uzbekistan. (0204)

Harvesting of grain crops has finished in Ryazan Oblast. (0430)

Chechen-Ingush ASSR farmers have today begun mass harvesting of corn for grain; the crop has been grown using industrial technology and the yield is good, front-ranking teams are obtaining 70 and 80 quintals per hectare. (0800)

Crews of the Issyk-Kul shipping line have started transporting grain of the new harvest. It has established links with collective and state farms of the eastern rayons of Priissykkulye, which is called Kirghizia's granary. The ships are carrying wheat, barley, and other crops from here strictly on schedule. (1100)

Perm Oblast machine operators have harvested grain crops from two-thirds of their area. Let us recall that the grain field of Prikamye covers over 1 million hectares. (1530)

Mass sowing of winter cereals has begun in Kirghiziya. This work is now being carried out in the major grain-growing zones of the Chu and Talas Valleys and of Issyk-Kul and Osh Oblasts. An area amounting to 270,000 hectares has been given over to winter crops. (2130)

Winter crop sowing has been completed in Tatariya. (2230)

9 September

The sugar beet harvest has begun in Saratov Oblast, where the crop occupies about 250,000 hectares. (0400)

Feed production teams of Orel Oblast have fulfilled their annual plan for hay procurement: for publicly owned animals, almost 350,000 tons of hay have been laid in for the winter. Also, 650,000 tons of silage have been laid in. (0400)

The Sovetskiy, Gorshechenskiy, and Kastornenskiy Rayons have been the first in Kursk Oblast to finish sowing of winter wheat. Winter wheat is being sown according to intensive technology on over 2,000 hectares in the oblast. (0600)

Harvesting of corn for grain has started in Crimea. (1300)

Belorussian collective and state farms have sown winter grain crops on 300,000 hectares. Cereal crops will be cultivated according to the intensive technology method on an area of 1 million hectares during the first year of the 12th 5-Year Plan. (1330)

More than 10,000 potato combines and diggers will be taking part in potato gathering in Belorussia, which is beginning to be carried out on an area of 350,000 hectares. (1330)

Sowing of winter cereal crops has started in Kirghiziya. (1800)

Mass potato lifting has started in Tuva. Specialists believe that this year's harvest will satisfy the republic's needs for the whole year. Seeds have also been procured for specialized farms. (2004)

Kurgan Oblast: Grain has been reaped on one-third of the sown area. Threshing is lagging behind reaping. (2230)

10 September

In Pavlodar Oblast, despite rains, the harvest is going well; today grain is being reaped on the second million hectares. (0400)

In Saratov Oblast to date 2.2 million tons of grain has reached the elevators. (0600)

A little less than 2 million tons of grain has been delivered to storage from Bashkiria. (0600)

Mass potato lifting has begun in Orel Oblast on almost 40,000 hectares. (0600)

Over the years of the 11th 5-Year Plan in the River Irtysh-side area of Semipalatinsk Oblast 20,000 hectares of solonetz soil has been turned into farm land. (0600)

Sugar beets harvested from 1.5 million hectares has begun to be refined in the Ukraine. Production at the works will be more efficient with the introduction of new technology and equipment; the newly created capacities are capable of taking more than 2 million tons of beets daily. (0801)

Buckwheat has been harvested on half the area under that crop in Belorussia; a yield of 14 quintels per hectare of excellent grain is reported on front-ranking farms. (1100)

It is reported from Uralsk that Kazakh Priuraliye farmers have completed threshing grain crops. Grains have been harvested from around 1.8 million hectares. (1130)

Winter sowing has begun today in the northern zone of the Kuban. Winter crops to be cultivated using intensive technology are to be sown on an area of 1.3 million hectares in 15 days. (1300)

19 September

Grains have been cut on one-third of sown land to date in Tuva, with around half of this figure threshed. (0100)

Altay farmers have sold their first million tons of grain of the new harvest to the state. (0600)

At this time of year the transfer to indoor maintenance of cattle begins, and the change of diet often leads to lower milk and meat yields. In the 12th 5-Year Plan the increase in animal-husbandry output must be twice as high as in the 11th. The prerequisites for this exist. Bashkir, Tuva, Kaluga, Belogorod, and Kuybyshev stock-breeders are doing well. However, in the Altay, Primorye, and Uzbekistan, the development of animal husbandry has slowed down. This is due above all to the low productivity of the fodder-growing fields. In the RSFSR there are 3 hectares of fodder-growing land per unit of cattle. Arable land under fodder crops in the RSFSR amounts to 40 million hectares, but there is still not sufficient feed. At the same time, only one tenth of the hav and root crops are held in capital buildings. Because of this, one third of the nutritive value of the fodder is lost.

Odintsovskiy Rayon, Moscow Oblast, has adopted high pledges. (1500)

Cotton procurement in Azerbaijan has already passed the 400,000 tons mark. (2304)

20 September

In Omsk Oblast mechanizers are completing the threshing of grains on the second million hectares. Grains remain to be harvested from 300,000 hectares. At the present rate of work this will take 2-3 days. So far state granaries have received over 700,000 tons of Siberian grain; strong and valuable wheats account for nearly 500,000 tons. (0204)

Kolkhozes and sovkhozes of the Ukraine have fulfilled the year's plan for laying in hay. For the first time in the republic, 7.3 million tons of this fodder has been stored away. Around 80 percent of it is first and second class quality. (0400)

The sugar-manufacturing season began today in Bashkiriya. All works have begun processing of the new beet harvest. A good harvest has been obtained here. It is intended to process 1.3 million tons of raw material. Among the newly-built enterprises in the autunomous republic is the large and up-to-date Rayovskiy works, which is capable of processing 3,000 tons of sugar beets daily. (0800)

Mass potato picking has started in Altay Kray. (1100)

Moldavia's specialized enterprises have begun processing this year's grape harvest, amounting to some 700,000 tons this year. Supplies for production of wine have been cut back sharply this year, and juice production has increased. The enterprises concerned have undergone rapid reconstruction for this purpose: a third of them have been equipped with special press hoppers which substantially increase the quality of the juice and its vitamin content. (1300)

Machine-operators of the Altay Kray have harvested two-thirds of grain crops. Over a half of it has been threshed. Kolkhozes and sovkhozes of the kray are harvesting their second million of tons already. (1750)

Chechen-Ingushetia farmers have started sowing winter crops. (1800)

The Omsk Oblast harvest is coming to an end; grain crops have been threshed here on an area of 2 million hectares, 90 percent of the entire land under grain crops. (2230)

21 September

Some 140,000 tons of the new crop of grain have been sent to state granaries by farmers of Sverdlovsk Oblast; farmers of the Central Urals intend by 1 October to deal with the grain delivery plan including paying off debts. To fulfill their commitments the farmers must deliver another 25,000 tons. (0204)

Kurgan Oblast: 1 million of grain has been threshed and harvesting is nearing completion. (0600)

Yaroslavl Oblast: The plan for laying in coarse and succulent fodder has been completed. Almost 20 percent more than last year has been laid in. (0600)

Mass winter crop sowing has begun in Krasnodar Kray in 11 rayons so far in North Kuban; daily 25,000 to 30,000 hectares are sown. Winter grain crops are to be sown using intensive technology on twice the area as compared with last year, that is on an area of 1.3 million hectares. Autumn sowing will begin on the remaining rayons of the Kray from October 1. (1500)

Grain is being threshed on the 20th million hectare in Kazakhstan. Four-fifths of the republic's grain growing area have finished harvesting.

Many farms have completed harvesting and threshing of cereal crops. (1904)

22 September

In the Kurgan Oblast, where harvesting is in full swing, 700,000 tons of grain have been sold to the state thus far. (0800)

Black sea area farms have begun harvesting corn on irrigated land. In Odessa Oblast much experience has been accumulated in programming yields of basic grain and fodder crops on irrigated lands which now cover around 30,000 hectares. Use of hybrid strains and maximum doses of fertilizer have secured a large return from land of 100 and more quintals of grain per hectare. Many teams and sections have this year followed the example of the innovators. (1750)

Moldavia has begun mass harvesting of corn, sunflowers, and other late crops. (1950)

Komi ASSR has completed its 5-Year Plan plans for potato procurement ahead of schedule - delivering 244,000 tons. (2005)

Omsk Oblast mechanizers are today carrying out the threshing of grain on the final 100,000 hectares. Grains have already been harvested from more than 2 million hectares; more than 800,000 tons of Omsk grain has been delivered to state granaries so far. (2230)

The rice harvest is gaining pace in Karakalpakia; to date around 10 percent of the year's task has been delivered. (2230)

23 September

Tselinograd Oblast has procured around 1.3 million tons of grain so far (0600).

Seed preparation is under way in Omsk Oblast; over 400,000 tons of seeds has been laid in, four-fifths of the plan. (0630)

To date, 30,000 tons of the new rice harvest has been delivered to the granaries of Kara Kalpak ASSR. (0800)

Bryansk Oblast mechanizers are conducting the potato harvest, the main agricultural crop here, under very difficult conditions. Despite the bad weather, the harvest has already been gathered in from more than one quarter of the fields. Our correspondent reports that, since the beginning of September, the normal rainfall for 2 and 1/2 months has fallen in Bryansk Oblast. In certain places rivers have broken their banks and flooded hayfields, pastures, and fields. The water is now being drained on the farms. More than 35,000 city dwellers have come to the aid of the countryside. (0800)

The mechanizers of the Rostov Oblast have started harvesting corn. The crop occupies more than 200,000 hectares in the oblast. (1100)

The sugar beet harvesting campaign in the Kursk Oblast is building up speed. So far the crop has been lifted from one-fifth of the area sown, and 400,000 tons of raw-material have been dispatched for processing. Teams which are laying-in fodder are working in the harvesting and transportation units: more than 100,000 tons of sugar beet tops have been procured. (1100)

Ukraina: Harvesting of early ripening hybrid corn varieties has begun here. Over 7,000 mechanized teams are at work in the fields; this year some 2.4 million hectares of land have been sown to this important fodder crop, considerably more than in recent years. (1500)

Potato lifting is in full swing in Belorussia: by today 140,000 hectares were cleared, over 40 percent of the area under this crop. The work has been well organized to counterbalance somewhat slower lifting rates than usual because of the very wet soil. (1500)

In Tyumen Oblast grain and pulse crops have been cut on 1 million hectares, which is 90 percent of the plan, and 900,000 hectares have been threshed. (1750)

24 September

Viktor Masyutkin from Gomel Oblast is digging 100 potatoes a day. Belorussian farmers have sold the state 500,000 tons of potatoes to date. (0400)

Uzbekistan: 1 millionth ton of cotton delivered. Last year by this time 200,000 tons less had been picked. (0400)

Chechen-Ingush ASSR farmers start mass corn harvest. Quality is good. (0400)

Farmers in Bashkir ASSR have produced for the state 2,800 million tons of grain. Grain continues to arrive at the elevators. (0430)

Farms in Perm Oblast have started threshing on the second millionth hectare. Rains are hindering the harvest. (0500)

In Western Siberia, grain has been reaped from 86.5 percent of the sown area, and threshed from almost 75 percent. (0600)

About 750,000 tons of grapes, half the planned total, have been harvested and sold to the state in Azerbaijan. (0600)

The statistical directorate of Kazakhstan reports that grain has been reaped so far from 22,885,000 hectares in the republic, that is, from 94 percent of the total sown area. (0800)

Mass sowing of winter crops has begun in Dagestan. The area to be sown by 10 October is 200,000 hectares. (0800)

Threshing has begun on the last fourth million hectares in Altay: grain crops have been harvested on more than 90 percent of all areas; most grain sold to the state is spring wheat, in particular strong, valuable and hard varieties. (1000)

In Novosibirsk Oblast harvesting is close to completion. The threshing is being carried out on the last third of grain fields. (1100)

Sowing of winter wheat is coming to an end in Rostov Oblast. (1300)

Mass harvesting of cotton has begun in Kazakhstan. (1300)

Belorussia: half a million tons of potatoes have been sold to the state. (1430)

Kurgan Oblast: 1 million tons of grain has been delivered to reception centers; a quarter of this is of strong and valuable strains. (2230)

Omsk Oblast: cereals are being harvested on the last fields. Threshing has been completed on over 2 million hectares. (2230)

25 September

Half of the Ukraine's potato acreage cleared. (0400)

Sowing of grain crops has started in Kulyab Oblast of Tadzhikistan, where 50,000 hectares has been put aside for it. (0600)

A total of 1 million tons of Siberian grain has been delivered to the state in Omsk Oblast. Almost 90 percent of wheat arriving at procurement centers is made up of strong, valuable and hard varieties. The sale of grain to the state is continuing. (2230)

Farms in Chelyabinsk Oblast have completed the harvesting of grain crops. For the first time on 550,000 hectares the wheat was cultivated using intensive technology. (2230)

Machine operators of Kazakhstan have harvested grain crops on the area of 22,855,000 hectares. This has been reported by the Republican Statistical Directorate. The grain crops so far obtained comprise 94 percent of all cereals sown to Kazakh fields. Elevators and grain-collecting enterprises receive up to 20 million poods of grain daily. We will add to that saying that farms of the Tselinograd Oblast have been the first on virgin lands to finish harvesting grain crops. (2300)

All sugar works of Altay Kray have started work to their full capacity; beetroot of the new harvest has started to arrive there. In the course of preparations for the new season, reconstruction of the enterprises had been carried out; automized equipment fitted with program controls has been installed. This season, 40,000 tons of sugar is to be produced in the kray. (2304)

26 September

Harvesting of cotton is in progress in the Galabinskiy Rayon of the Tashkent Oblast. (0400)

Rice harvesting has begun in Chechen-Ingushetiya. Rice paddies occupy about 5,000 hectares in the autonomous republic. (0900)

Rice harvesting underway in Rostov Oblast. (1100)

Rovno Oblast potato picking under way. (1100)

Altay Kray: buckwheat and millet harvesting has started in Altay Kray, where 180,000 hectares are sown to these crops. Wheat and oats are being threshed on the final quarter of a million of hectares. (1500)

27 September

Kirghiziya has fulfilled annual plan for laying-in of feed, with 6.5 million to date. (0600)

Mass harvesting of grain corn has begun in Saratov Oblast. The area for this crop has been doubled this year -- to 85,000 hectares. Several rayons are obtaining 40-60 quintals per hectare. (0600)

28 September

Farmers of Amur Oblast have procurred 120,000 tons of grain so far. (0204)

Khorezm Oblast: record rice crop grown in the lower reaches of the Amu-Darya, but harvesting work in Uzbekistan as a whole is proceeding

slowly. By today rice had been reaped on only slightly more than one-third of the total area. Surkhan-Darya Oblast is particularly slow. Here the crop ripened much earlier than elsewhere. (0600)

The farms of Chita Oblast have delivered their first 100,000 tonnes of grain to the state. This is a third of their planned task. The harvest workers are having to cope with frequent rain and occasional snowfalls. (1100)

A comprehensive system for revitalizing land is now being carried out by Lithuania's land improvement workers. Within the framework of the special fertility program a network of standardized areas of land with a programmed yield is being created. The first such area of 1,000 hectares was today handed over to the crop farmers of Raseiniai Rayon. (1100)

Potatoes are being harvested on the second half of the area in Belorussia. (1300)

Farmers in Latvia have completed sowing of winter crops. (1500)

In Kazakhstan, grain has been harvested from 23,500,000 hectares, and threshed from 22,750,000 hectares (93 percent of what has been reaped). (1750)

The harvest has ended in Perm Oblast, where the sown area is 1 million hectares. The farmers of "many farms" have obtained a good grain harvest. (1750)

The bread harvest has ended in Prikamya on an area of 1,000,000 hectares. (2004)

In Omsk Oblast, bread grains have been harvested on all planned areas, which is over 2 million hectares. A high yield was obtained on tracts where wheat was cultivated in according with an intensive technology. (2230)

BRIEFS

ORENBURG GRAIN HARVEST BEGINS-Harvest time has come to the Orenburg area. Grain growers in the oblast's southern rayons -- Ilesksiy, Akbulakskiy and Sol-Iletskiy -- have begun the massive harvest of winter rye, barley and wheat. Everywhere competition for the highly productive use of grain cutting and threshing equipment is spreading. The tone for this patriotic movement is set by honored machinery operators in the oblast: twice Hero of Socialist Labor and member of the CPSU Central Committee, V. M. Cherdintsev, Heroes of Socialist Labor L. K. Kovalenko, Ye. N. Manin, G.S. Starkin and others. On the eve of the harvest they have appealed to all its participants to increase daily output in grain cutting to 45 hectares per reaper and daily output per combine to at least 500 quintals. [By I. Gavrilenko, correspondent] [Text] [Moscow SELSKAYA ZHIZN in Russian 21 Jul 85 p 1] 11574

NEW COMBINES ON FIELDS--Three new "Don" grain combines are harvesting windrows at the Rassvet Kolkhoz, Sakmarskiy Rayon, Orenburg Oblast. This harvest link is led by V. Cherdintsev, twice Hero of Socialist Labor and an honored grain grower. Vasiliy Makarovich has long been a friend of the Rostov combine builders. He was entrusted with testing the first models of the "Don." Collaboration with machinery operators and his observations and comments helped designers improve the combines. [Text] [Moscow SELSKAYA ZHIZN in Russian 3 Aug 85 p 1] 11574

ORENBURG HARVEST REACHES ELEVATORS--Grain from the new harvest has begun arriving at grain receiving points in Orenburg Oblast. The traditional first red train [oboz] was sent to elevators by farmers in Ilekskiy Rayon. Grain procurement workers in the Orenburg area are well prepared for the 85 harvest receiving units have been modernized at a number of elevators to increase their productivity. Mechanized open areas for grain reception have been set up. [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 4 Aug 85 p 1] 11574

KUSTANAY OBLAST AKTIV ADDRESSED—Grain crops have been threshed from almost two thirds of the area in the Kustanay Oblast, the major grain growing area of Kazakhstan. Today, at a session of the oblast party and economic aktiv, measures for the high yields from each hectare of the land in the light of tasks set at the recent conference in Tselinograd were outlined. Comrade Kunayev, member of the CPSU Central Committee Politburo and first secretary of the Central Committee of the Communist Party of Kazakhstan, spoke at the aktiv. [Text] [Moscow Domestic Service in Russian 1400 GMT 17 Sep 85]

KAZAKHSTAN HARVESTING REPORT -- The decisive days of the harvest have come to Kazakhstan. The main front has unfolded in the northern basic grainsowing oblasts. As was reported by the Central Statistical Administration, over the past week 5 million hectares of grain and pulse crops had been reaped in the republic. Of this over 4 million hectares were on the fields of the northern grain zone. Since the start of the current grain harvest this is the very highest weekly increment in the area of the harvest gathered. Machine operators of Kustany Oblast have registered a specially big addition of grains reaped these days --1,268,000 hectare; Tselinograd -- 1,015,00 hectare and Kokchetav --800,000 hectare. At present in the north of the republic mass gathering of the main virgin lands crop is in progress -- spring wheat. This year it was cultivated here for the first time on a large area using intensive technology. This has had an effect on the yield. In all northern oblasts now the output of grain is higher than last year. Altogether in Kazakhstan 17 million hectares of grain and pulse crops except for mzize, have already been reaped. This is 69 percent of what was sown. Almost three-fourths of what was reaped has been threshed. [Text] [Moscow Domestic Service in Russian 1330 GMT 11 Sep 85]

COTTON HARVESTING--Cotton harvesting has begun in Azerbaijan SSR. The republic's cotton-growers have pledged to sell 775,000 tons of cotton to the state. [Summary] [Baku Domestic Service in Azeri 0105 GMT 28 Aug 85 GF]

MOSCOW CITES CSA ON FIELD PREPARATIONS—Over 1.5 million tons of raw cotton has been delivered to date in the Central Asian Republics and Azerbaijan. The USSR Ministry of Agriculture tells us the cotton planters started the harvest early this year and it has been going fast right from the start. Combines started work early too, and they have now gathered over 200,000 tons of raw cotton. The highest rates of gathering are now being achieved in Azerbaijan, where two-thirds of planned crop have been delivered. Throughout the country fallow plowing is being stepped up; according to USSR Central Statistical Administration a third of the acreage envisaged for spring sowing has been plowed, but in the eastern regions volume of work on preparing fields has been done only insignificantly so far; only in Amursk Oblast are they doing better than their neighbors.

Baku Domestic Service in Azeie 0105 GMT 28 Aug 85 GF7

POST HARVEST CROP PROCESSING

MOSCOW TV CITES RAILWAYS DEPUTY ON TRANSPORTING MACHINERY, HARVEST

LD111017 Moscow Television Service in Russian 1030 GMT 10 Sep 85

[From the Novosti newscast]

[Text] The flow of cargo to harvest areas has intensified on the country's trunk rail lines. Machinery and equipment is being conveyed, and transport of grain from this year's harvest has increased considerably.

One may judge the scale of grain transport from the fact that in August alone, 19,000 freight cars more than planned were supplied the task for shipment of grain has been fulfilled by 117 percent. In September, the volume of shipment exceeds 5,000 freight cars a day. The Ministry of Railways central traffic is the main coordination headquarters, where the operational round-ups, reports and business reports from all the country's railways arrive, as well as news from the front — the farm harvest.

Kiev, Kuybyshev and Tselinograd are on the communications line. Grain reaping has begun in the oblasts, and the southern rayons of Kustanay Oblast are just beginning the harvest campaign. The republic's Ministry of Procurements determined that the volume of average daily grain shipment in the first 10-day period is up to 600 freight cars. In September, it is planned to dispatch at least 40 percent of the grain by direct trains [marshrutami], which is 8-10 percent more than last year.

[Begin video recording of V. N. Butko, deputy minister of railways]
Today there is an increased scope of demand for transport of this year's harvest on the Kuybyshev railroad and on the Privolzhye and West
Siberian railroads, and we expect big shipments of grain on the Virgin
Lands railroad. We are nearing completion the transport of machinery to the virgin lands for the harvest, and in order to prevent interruption in transport of grain from this year's harvest, we are sending the necessary quantity of specialized grain freight cars
[sernovoz] and covered rolling cars there. Since the start of this year's harvest transport we have already conveyed almost 1.5 million tons, and we can say that we have met all the requirements of those despatching goods in full. Now the peak period in transport of the new harvest is beginning, and we are faced with the task of conveying everything that

toilers of the fields will gather, without losses, on the basis of further improvement of operational work. [end video recording] [video shows trains with various freight cars in motion, traffic controllers and Butko at work in large office, harvesters in the fields].

POST HARVEST CROP PROCESSING

NEW COTTON PROCUREMENT, PROCESSING SYSTEM IN UZBEKISTAN DISCUSSED

Moscow EKONOMICHESKAYA GAZETA in Russian No 34, Aug 85 p 17

/Article by A. Tsamutali, corresponding member of VASKhNIL and F. Kayumov, doctor of economic science "Cotton Valued On the Basis of Its Fiber"/

/Text/ Concerning work under the conditions imposed by the new system for the procurement and processing of raw cotton in Uzbekistan.

In recent years, a noticeable reduction has taken place in Uzbekistan in the fiber yield being obtained from each ton of raw cotton procured. This is the result of a number of factors associated both with the technology for raising and harvesting cotton on the farms themselves and also with the organization of its processing. But this is explained to a considerable degree by the fact that up until recently the cotton ginning plants were subordinate to various departments. This led to the development of conflicts and it raised the desire to increase the results of one's activities at the expense of partners. The kolkhozes and sovkhozes, in connection with their payments for the raw cotton, were not interested in increasing the yield of fiber and quite often the plants lowered the grade of the raw materials in their accounts with the farms.

New System of Procurements

Last year the farms in Uzbekistan converted over to selling raw cotton to the state with the fiber yield being taken into account. This was preceded by a great amount of organizational work. All of the work collectives were informed regarding the principles and advantages of the new system for purchases and the payments for output, with the fiber content being taken into account. This promoted improvements in the agricultural practices and the subordination of all work by the kolkhozes and sovkhozes to the task of obtaining a high quality yield and improving the quality of the harvest operations.

The procurement network was also expanded, its logistical base strengthened and the training and certification of specialists at the receiving points carried out. Prior to the commencement of the 1984 harvest, 2,000 new acceptance sites and dozens of drying and ginning departments were built, hundreds of different types of mechanisms were introduced and the technical re-equipping of a number of cotton ginning plants carried out.

For the republic as a whole, the production experiment produced positive results. The system established for accepting and processing the raw cotton was suitable both to the farmers and to the state. At the present time, the entire system for the raising and harvesting of cotton is in large measure directed towards raising the quality of the output. Substantial improvements have been realized in the acquisition of raw cotton by industrial varieties at the procurement points.

The joint efforts by the cotton growers and workers attached to the procurement network and the processing enterprises have ensured a considerable improvement in the quality of the products. In 1984, the first two varieties of raw cotton accounted for 76 percent of the procurements -- 12 percent more than in 1983. During this period, the fiber yield on farms throughout the republic increased from 26 to 31 percent and in Namangan and Fergana oblasts it exceeded 32 percent.

It was by no means an accident that many chronically unprofitable farms, which had special mark-ups, succeeded in raising their production profitability sharply only under the new conditions for procurements and processing of the raw cotton. Thus, in 1983 the Sovkhoz imeni M. Gorkiy in Balykchinskiy Rayon in Andizhan Oblast had 65,000 rubles worth of losses and last year it realized more than 600,000 rubles worth of profit.

To Join Efforts Within the RAPO Framework

The conversion of the farms over to the new conditions for procurements and the processing of raw cotton was preceded by the merging of the ministries of agriculture and the cotton cleaning industry of Uzbekistan. Based upon the latter, a cost accounting main administration -- Uzglavkhlopkoprom -- was created in the republic's Minselkhoz /Ministry of Agriculture/. However, this reorganization affected only the upper level of cotton production administration. Just as in the past, the agricultural enterprises and the cotton cleaning plants in RAPO /rayon agroindustrial association/ were organizationally and economically disassociated. Each one of them retains its own plans and financing.

Some specialists consider the solution to be that of creating independent agroindustrial associations consisting of a_cotton cleaning plant and farms. The Akaltyn APO /agroindustrial association/ in Syr-Darya Oblast, which includes three sovkhozes and a cotton plant with a capability of 40,000 tons, was organized based upon this principle. A generalization of its operational experience has shown that such a plan for intensifying integration in the rayons creates a superfluous administrative element in a RAPO, leads to the breaking up of a single economic complex in the rayon and increases sharply the number of administrative and control personnel. Using such a model for control, the administrative staff in the republic's rayons would have to be increased by almost 5,000 personnel.

It is our opinion that the farms and plants for the processing of cotton must be merged within a RAPO framework both organizationally and administratively. A similar reorganization should be carried out at the oblast and republic levels. The implementation of this recommendation will convert the working staff of a

council for a rayon agroindustrial association from a purely administrative unit into a production-administrative unit. It will then have closer contacts with the kolkhozes and sovkhozes and with the plant.

Production planning and cotton procurements based upon the fiber yield is solving many problems and yet at the same time some unique problems are arising here. The cotton varieties that have been developed are producing seven types of fiber, which are distinguished by toughness, length, fineness and other quality indicators. Usually the fiber yield from high quality varieties is less than that from other varieties. Under the new conditions, this peculiarity must be taken into account more fully during planning since, in the interest of increasing their gross output production, many farms have started expanding their sowings with cotton which produces a high fiber yield albeit of lower quality.

The farms and the state are sustaining considerable losses owing to shortcomings in planning the priority order for the processing of industrial varieties of raw cotton. Usually the cotton plants strive to process earlier the raw cotton obtained from 1st and 2d varieties, harvested during the best periods. This raw material is characterized by an optimum moisture content and can be stored for a long period of time without losing its quality. Thus we recommend that raw cotton of the 4th variety be processed first of all -- damp and strongly contaminated. Its storage leads to a reduction in quality and in the fiber yields and also to an increase in waste. Despite this fact however, only 20 percent of the 4th variety of cotton was processed during the 4th quarter of last year at many plants.

Why Is the Equipment Lying Idle?

The future for cotton production is largely dependent upon the mechanization of harvesting operations, since the kolkhozes and sovkhozes are capable of harvesting only one half of their crop manually. Last year, 34.6 percent of the raw cotton was harvested by machines, whereas earlier 65 percent had been so harvested. As a result, the assistance of a large portion of the municipal population was enlisted for an extended period of time for harvesting the cotton. An increase took place in the expenditures for low productivity manual labor and many farms paid up to one half of their wage fund for sovkhoz workers and kolkhoz members during the harvest period to other workers brought in from outside.

All of this is bringing about adverse economic and social consequences. The basis principles for the use of collective contracts and cost accounting in cotton production have been violated. The expenses for maintaining 17,000 inactive cotton harvesting machines have had a very damaging effect on the branch's economy, the harvest campaign was prolonged, the autumn plowing was not carried out in a timely manner and this complicated severely the carrying out of the spring field operations during 1985.

Why has the republic yielded the positions achieved earlier in the mechanization of harvest operations? There are obviously many reasons for this. We will touch upon only the organizational and economic aspects of this problem. In 1983, a new standard was introduced for machine-harvested raw cotton. This was

a measure aimed at improving the quality of the raw cotton. However the new prices for machine-harvested cotton do not take into account all of the additional expenses associated with preparation of the fields and the turning strips and the operation of the harvesting equipment. To a large degree, the prices which existed earlier reflected these peculiarities. Machine-harvested cotton from the 1st and 2d passes is paid for in accordance with the price for the 1st grade of manually harvested raw cotton. The farms thus obtained the required reimbursement for additional expenditures and they were economically stimulated for having introduced technical progress.

The new system for procurements and the processing of raw cotton has created favorable conditions for solving an important problem associated with the development of cotton production -- raising the quality of the product. At the same time, it is in need of further improvement. The mechanization of the harvesting operations, without which it would be impossible to ensure the timely harvesting of the crop or improvements in the quality of the final product, continues to be a bottleneck in the development of the cotton complex.

Thus, material incentive measures should ideally be developed for stimulating the kolkhozes and sovkhozes into making the best use of their equipment and expanding the machine harvesting of cotton. At the same time, our designers should devote serious thought to improving the ootton harvesting equipment, since it is still not satisfying the requirements being placed upon it and it is not ensuring the quality required in the work and raw materials needed for obtaining fiber. The solving of these problems within the overall system of measures aimed at strengthening agroindustrial integration will make it possible to raise the efficiency of cotton production.

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POST HARVEST CROP PROCESSING

MOSCOW CRITICAL OF FRESH VEGETABLE DELIVERIES

LD131313 /Editorial Report/ Moscow Domestic Service in Russian at 0800 GMT on 13 September carries a 4-minute feature entitled "From Field to Store Counter," presented by program editor Galina Vinogradova. She begins the feature by saying: "Unfortunately, the provision of the population with fresh vegetables leaves much to be desired. Either the vegetables are left for ages at depots and are spoiled before ever reaching the stores, or they are delivered in a heap, as the storeworkers call it, not packed, and the storeworkers themselves have to do the sorting and packing; meanwhile, long lines build up in the store. The need to arrange the smooth operation of the progression from field to store counter was again pointed out by Mikhail Sergeyevich Gorbachev in his Tselinograd speech."

She then introduces a report from Vladimir Plotnikov in the Crimea, who describes one instance of a farm giving excessive priority to shipping tomatoes out to other areas so that the local inhabitants were left with none. He says: "Farms here frequently break their contracts for vegetable delivery in respect of variety, quantity and quality. No wonder the customers have to wait in two or three lines in turn to buy all the vegetables they want."

He interviews (Viktor Sergeyevich Lunev), director of the Simferopol wholesale and retail fruit and vegetable combine, who says: "Our customers have many grounds for complaints. You know, I have been working in this system for 15 years, and every year for a number of years things have been getting worse and worse as regards deliveries of fruit and vegetables, particularly their delivery. The Zhdanov Kolkhoz is the only one in the Crimea that delivers its products in the proper variety. If a vegetable truck arrives from the Zhdanov Kolkhoz, Simferopol Rayon, Kolkhoz chairman (Izrail Fadeyevich Kharkim), you know it will have the proper variety; the housewife can do all her shopping in one go." He praises this kolkhoz for delivering all its produce properly packed and weighed, but adds: "Other farms, with the excuse of lack of transport, will just send a truck with nothing but 4 metric tons of potatoes. Our stores have very little storage space, so if they take

in 4 tons of potatoes, just unloaded all in a heap, they have room for nothing else. And that is why there are shortages in the stores: they are either full or empty."

(Lunev) tells of another farm which was equipped with containers on trucks with their own unloading cranes. The stores were properly equipped for receiving the containers and the truck could be unloaded in 15 minutes; but the vegetables were still not packed and they were badly damaged during unloading.

The feature ends as (Lunev) speaks of laying in stocks for winter, complaining of the farms' inadequate preparation of their vegetables for shipment.

LIVESTOCK FEED PROCUREMENT

PARTY REVIEWS UNSATISFACTORY MOLDAVIAN FEED PROCUREMENT

Kishinev SOVETSKAYA MOLDAVIYA in Russian 15 Aug 85 p 1

Article: "In the Central Committee of the Communist Party of Moldavia and the Council of Ministers of the Moldavian SSR"/

/Text/ The Central Committee of the Communist Party of Moldavia and the Council of Ministers of the Moldavian SSR have examined the question concerning additional measures for increasing the procurement volumes and improving the quality of the feed and the organized carrying out of the ensiling of corn.

In the decree that was adopted, mention is made of the fact that this year the ministries and departments of the agroindustrial complex, individual rayon party committees, rayon executive committees and administrative organs in the various areas did not undertake exhaustive measures aimed at ensuring fulfillment of the plans and tasks for procuring hay and haylage or for making maximum use of all available reserves and potential for accumulating additional quantities of feed resources. Many kolkhozes, sovkhozes, sovkhoz-plants and inter-farm enterprises are tolerating serious shortcomings and negligence in this important sector of work and thus the rates for procuring forage have been considerably lower. Farms of the Ministry of Viticulture and Winemaking of the Moldavian SSR and the Moldtabakprom Agroindustrial Association have reduced their volumes for the accumulation of hay by almost twofold to the level of last year. The tasks for the current year in the systems of the Kolkhoz Council for the Moldavian SSR, the ministries of agriculture and fruit and vegetable industry of the Moldavian SSR and the Moldefirmasloprom Agroindustrial Association were fulfilled by only 31-45 percent.

Less than one third of the hay called for in the task was laid away in Chadyr-Lungskiy, Sorokskiy, Kagulskiy, Lazovskiy and Drokiyevskiy rayons. The rates for the laying in of haylage were especially low on farms in Floreshtskiy, Chimishliyskiy, Oknitskiy, Novosnenskiy and Leovskiy rayons.

The reason for the unsatisfactory organization of feed production operations is a lack of control and low personnel exactingness on the part of the leaders of ministries, departments, rayon party committees and primary party organizations.

The Central Committee of the Communist Party of Moldavia and the Council of Ministers of the Moldavian SSR have directed the attention of the leaders of

ministries and departments of the agroindustrial complex comrades V.A. Ryabchich, G.A. Stepanov, N.N. Lukyanov, V.A. Protsenko, N.F. Verbitskiy and M.S. Khynku, rayon party committees and rayon executive committees to the unsatisfactory level of work organization concerned with the accumulation of feed for public livestock husbandry and have obligated them to undertake immediate measures aimed at intensifying the feed procurement rates, while devoting special attention to raising the quality of the feed and making maximum use of all available reserves and opportunities for accumulating additional feed resources and achieving unconditional fulfillment of the assigned tasks.

The Central Committee of the KPM Communist Party of Moldavia and the republic's Council of Ministers consider a most important task of the party, soviet, professional trade union and agricultural organs to be that of subordinating all organizational and mass-political work to the mobilization of labor collectives for the timely and highly organized carrying out of the harvesting of corn for silage and the procurements of other types of feed.

In the interest of raising the proportion of silage in the feed rations for cows to 50 percent and that for young cattle stock to 60-65 percent, converting cattle husbandry over to year-round, single-type, silage-haylage feeding and lowering the production costs for livestock husbandry, the ministries and departments of the republic's agroindustrial complex, rayon party committees, executive committees of rayon soviets of people's deputies and the leaders of kolkhozes, inter-farm associations (enterprises), sovkhoz-plants, sovkhozes and other agricultural enterprises must ensure the timely harvesting of corn for silage in the established volumes.

The leaders and specialists of kolkhozes, inter-farm associations (enterprises), sovkhoz-plants, sovkhozes and other agricultural enterprises are being held personally responsible for the completion, during the next few days, of repair work on silage harvesting combines and transport equipment, for the construction of new and the repair of existing silage installations and for the development of working plans which call for the ensiling work to be carried out in not more than 16-18 working days. The harvesting of corn for silage will be carried out only during the phase of waxy ripeness of the ears and with a moisture content of 65-68 percent.

In the interest of augmenting the feed supply, more extensive use should be made of the practice of placing in trenches the leaf and stalk bulk of corn harvested for grain, with the mandatory addition of sugar or fodder beet haulm, pulp residue, post-harvest corn and other crops of late sowing periods.

In the interest of raising the labor productivity and material interest of workers in timely and high quality feed harvesting and procurement work, it is recommended that the work be organized in two shifts according to the type of harvesting complexes and that wages be paid according to the piece work rate per ton of silage procured and with the quality of the silage being taken into account.

The piece work rate is determined based upon the wage fund, computed from the planned work volume for procuring (harvesting) the silage crops and a raised wage for harvesting the feed, upon the condition that the output norm is

fulfilled by 60 percent of the wage fund during the first 10 days of the mass harvest work and by 30 percent -- during the subsequent period, additional wage for the periods and quality of the silage procurements (following crediting of the prepared feed) -- by 60 percent of the wage fund for 1st class feed and by 40 percent -- for 2d class feed.

Tractor operator-machinists, for having fulfillled in a high quality manner and without losses the seasonal norm for the harvesting of silage crops established for the farm are issued (free of charge) from 2 to 4 quintals of grain and for an assistant combine operator and drivers -- 70 percent of the amount of grain issued to a tractor operator-machinist.

In addition, bonuses from the material incentive fund are established for tractor operator-machinists engaged in the harvesting, transporting and tamping down of silage bulk and also for drivers:

...for each ton of silage bulk (hectare) harvested (transported) over and above the technically sound output norm, in the amount of 100 percent of the wage fund;

...for work performed at night (from 2000 to 0900 hours), in the amount of 40 percent of the piece-work rate for the actual amount of work carried out.

The rayon party committees, the executive committees of rayon soviets of people's deputies, the ministries and departments of the republic's agroindustrial complex and the trade union committees must ensure a high level of organization and efficiency for the socialist competition and the creation in each collective of an atmosphere of work enthusiasm and comradely mutual assistance. The republic committee must ensure a timely summary of the results of the socialist competition for silage procurements.

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LIVESTOCK FEED PROCUREMENT

FEED PROCUREMENT PROGRESS IN UKRAINE SURVEYED

Kiev SILSKI VISTI in Ukrainian 4 Jul 85 p 3

[Article: "Expediting the Tempo of Feed Procurement--With Special Attention to Quality"

[Text] For the current year the republic's agricultural workers have plans to procure 31.3 million tons of feed units of coarse and succulent feeds or 12.6 quintals per head of cattle.

Weather conditions for feed producton have proven difficult. The first harvest of green mass perennials and annual grasses has yielded less than last year. There was an especially low yield of these crops in Dnepropetrovsk, Kharkov, Voroshilovgrad and Donetsk Oblasts. That is why feed production workers are exerting themselves to take advantage of existing sources of strength and to have better stores of feeds for the winter. On the majority of farms, the foul weather had contended with the principal sources of strength—preparation, a sense of responsibility, and discipline—and it is expected that the large-volume method will be widely employed in the harvesting of grasses.

In the budding state (of leguminous and cereal grasses) during the stem extension phase, the nutritiousness of feed increases by one-and-a-half times; because of this condition the farm has the opportunity to obtain a second and third harvest. Thus both the quantity and quality of the forage increase.

According to data of the UkrSSR Central Statistical Board for 1 July, sown and natural grasses mown down in the first harvest on an area of 5.3 million hectares constitute 77 percent of the plan. The hay procured is 3.7 million tons—51 percent of the plan, and 488,000 tons more than last year; 6.4 million tons of haylage have been put up—66 percent of the plan; and 410,000 tons of grass meal and other dry feeds have been procured—33 percent of the plan. In all, 4.4 million tons of feed units have been procured—this is, 114,000 tons more than last year on this date.

On many farms, after mowing has fortified the grasses, they thrive, and there will be a good second harvest.

Striving to complete the first harvest as quickly as possible, residents of Vinnitsa Oblast (initiators of the socialist competition to increase the

production of feeds in the 11th Five Year Plan) are productively taking advantage of every hour. In kolkhozes and sovkhozes, grasses on 80 percent of the fields have already been moved down. The hay conveyed to feed years is 270,000 tons--96 percent of the plan. Among the oblasts, this is closest to the plan. Haylage totaling 524,000 tons has been placed in bunker silos--75 percent of the plan; 24,000 tons of grass meal have been produced--35 percent of the plan.

Affairs will also improve this year for the initiators of the socialist competition among feed production workers, the residents of Kovno: 330 complex-mechanized harvesting brigades, 36 of them inter-farm brigades, are working on farms here for the procurement of feeds. With regard to the feed production workers, the conditions of material and moral invigoration have been worked out and put into practice, not only for the quantity, but also for the quality of the procured feeds. Eighty-one percent of the plan has already been fulfilled in the mowing of sown and natural grasses, and 30 percent of the plan has been realized in the procurement of coarse and succulent feeds.

The agricultural workers of Volyn Oblast, who already have 28 percent of the coarse and succulent feeds planned, have achieved high indices in the procurement of feeds. Particular attention here is directed at progressive technology: the drying of hay by means of active aeration, and the preparation of grass meal and chopped straw from grass. Farm and laboratory specialists keep their eyes on the quality of the procured feeds.

Feed production workers of Voroshilovgrad, Dnepropetrovsk, Kharkov and Korovograd Oblasts are approaching the end of the harvesting of grasses. Here the workers and employees of the industrial towns and rayon centers are of significant assistance in the gathering of wild grasses. In the Voroshilovgrad area, village meetings and meetings of enterprise workers have been conducted where questions on assistance to kolkhozes and sovkhozes in the procurement of feeds were discussed. The chiefs have already delivered 15,400 tons of hay of marsh grasses and 4,500 tons of feed of brushwood. This oblast already has 28,000 hectares of repeatedly-sown areas, and in all there will be 100,000 hectares. With the assistance of electric fences, 136,000 head of cattle are being herded on scrub lands. By agreement, 22,000 calves and 15,000 piglets have been turned over to the inhabitants for fattening up.

The procurement of feeds in the kolkhozes and sovkhozes of Zhitomir Oblast is being conducted more intensively than last year. Here, harvest and transport brigades have been created and are operating, and a high preparedness of the feed harvesting machinery is being maintained. A significant number of farms widely utilize joint operation of machinery in the procurement of feeds, and in the collection of green mass grain combines have the addition of an airblower to the trailer. Hop presses are employed for the pressing of chopped straw of grass which is dryed out on the AVM assembly. In all, 27 percent of the plan for coarse and succulent feeds has already been attained. The course of feed procurement is methodically reported in rayon and oblast newspapers.

However, in a number of oblasts the best times have been squandered. Instead of 10 to 12 days, the first harvest goes on for more than a month; consequently, the mass having aged, a significant quantity of nutritious materials is not obtained and the grass does not grow for the second and succeeding harvests.

Individual kolkhozes and sovkhozes in the Nikolayev Oblast have already begun the second harvest of grasses. But 29 percent of the fields are still not mown in the first harvest. Because of the weak organization of labor on a number of farms, plans for the procurement of feeds are not being fulfilled, the techniques for procurement and safekeeping are not being adhered to, and the spoilage of feeds is permitted.

Eleven percent of the KSK-100 combines and 7 percent of the KPS-5G mowers in the oblast are not ready for use. Half of the units for the preparation of grass meal are not operating. Substantial hay depositories are practically honexistent in the Nikolayev area. Hay, for the most part, is stored in stacks which have been straightened out, and moisture seeps into them. There has been less of it procured than last year by 34,000 tons, less haylage by 128,000 tons, less silage mass by 84,000 tons, and less grass meal by a thousand tons. Kolkhoz and sovkhoz managers and specialists utilize reserves for the replenishment of feed stores, such as repeatedly sown areas, completely unsatisfactorily.

Poltava Oblast has also fallen behind in the harvesting of grasses. In Kherson and Zaporozhye Oblasts, where the harvest is gathered from a smaller area, it is lower than on this date last year.

In Zaporozhye Oblast the uncollected gross yield of grasses have risen on an area of 4,600 hectares. In a number of rayons the procurement of hay by means of active aeration is poorly employed. In Berdyansk none of 18 plants are ready for work. There are no hay depositories in 10 rayons. This year again their construction is not being carried out. There are not enough silagehaylage bunkers by a million tons.

In individual farms of the oblast the technology of feed procurement is not being adhered to. In the kolkhoz "Avrora" of the Primorskiy Rayon, 240 tons of hay were put up for safekeeping in increased humidity and it spoiled. In the kolkhoz "Nove Zhytya" of the Berdyanskiy Rayon, the haylage in bunkers, the volume of which is 1,200 tons, was put up during the course of 17 days.

In Khmelnitskiy Oblast's Khmelnitskiy Rayon on 10 June, six farms did not have a single ton of hay and eight had no haylage.

As is evident from the facts, a lagging behind is not at all always to be explained only by unfavorable weather conditions. Many farms lag behind in the procurement of feeds primarily because of disorganization and insufficient control over the operation of assemblies and the quality of feeds.

Before long-and on a massive scale-the second harvest will begin. It is necessary for directors and specialists of farms and local party, state and

agricultural institutions to utilize the sources of strength at hand to guarantee the fulfillment and overfulfillment of plans for the accumulation of coarse and succulent feeds.

The progress of the harvesting of grasses and of the procurement of feeds in kolkhozes, sovkhozes, and other state farms, as of 1 July, is characterized by the following indices:

(in percentages of the plan)

		f sown and ses (1st mowing)	Procured Feeds		
	OBLASTS	Harvesting of son natural grasses	Нау	Haylage	Grass meal
	Vinnitsa Volyn	80 81	96 93	75 64	35 43
	Voroshilovgrad Dnepropetrovsk Donetsk Zhitomir Transcarpathia Zaporozhye	96 81 77	66 23 38 78 30 30	39 41 74 80 101 54	33 25 26 39 73 25
	Ivano-Frankovsk Kiev Kirovograd Crimea Lvov	. 76 . 72	48 55 75 47 42 36	67 83 38 94 90	47 40 51 26 59
	Nikolayev Odessa Poltava Rovno Sumy Ternopol	75 65 81 70 72	52 29 70 47 48	41 59 85 85 76	22 38 50 40 45
	Kharkov	80 66	47 65	34 45 77 61 91 66	33 18 38 25 37 27

LIVESTOCK

MINISTRY OFFICIAL ON PROBLEMS OF MEAT PROCESSING BASES

Moscow SELSKAYA ZHIZN in Russian 6 Aug 85 p 2

[Article: "At the Gates of the Meat-Processing Combine: The APK: To the Consumer--Without Loss"]

[Text] "Every year I sell cattle," writes Aleksandr Anionovich Chugarin, war veteran and seasoned laborer, to the editors from the village of Kamenka, Gorkiy Oblast. And every time with problems of the sort that require the attention of the raykom secretary. Previously the intake center of the procurement bureau was in the neighboring village, but now the receiving of livestock has been transferred from the settlement to Raznezhskiy Kolkhoz. It can't handle the situation, and even the city of Gorkiy takes cattle only by prearranged schedule."

The editors receive many such letters from the public and from representatives of kolkhozes and sovkhozes. They say every time, "It's hard to deliver livestock; the transport distance is long and there's a long line at the meat-processing combine." In the past two years alone, the newspaper has published on the subject four times, analyzing the situation in Vologda, Penza and Poltava oblasts and in Maritime Kray. The replies of the local agencies were not satisfactory, although they explained the situation. In the light of this, M. Zarayev, SELSKAYA ZHIZN correspondent, went to A. D. Kharitonov, chief of the Administration of Capital Construction, USSR Ministry of the Meat and Dairy Industry, to request an interview about measures being taken in the nation to further the development of the material and technical base in the meat-processing branch.

[Zarayev] Anatoliy Davidovich, first please say a few words about what our meat-processing industry comprises.

[Kharitonov] That will require numbers: in the branch 940 different meat enterprises are in operation, an average of one per three administrative rayons. In 24 hours they are able to process 100,000 tons of livestock. The average capacity of a meat combine is 31 tons of meat, slaughter weight, per shift. But this is the average. About half the enterprises that process livestock are small ones with a capacity of 15-30 tons in one shift.

During the 10th and 11th Five-Year Plans the basic funds of the meat industry doubled. Construction of 107 meat combines and plants was carried out. New modern enterprises were started in the towns of Shumikha, Kurgan Oblast; Kamenka, Penza Oblast; Atyashevo, Mordovian ASSR; Ilinogorsk, Gorkiy Oblast; Vladimir, Cherkessk, Ternopol, Priluki, Novaya Kakhovka, Samarkand and others.

Up-to-date processes have been further developed, making possible the intensification and modernization of technological processing of all raw materials from animal husbandry. A number of plants have been constructed on the basis of contemporary automated equipment for the production of fast-frozen ready-prepared foods and pasteurized canned meats as well as canned dietetic foods and gelatin, with plant sections for the processing of edible precipitates for human and animal use, powdered mineral supplements and salt-lick briquettes. Enterprise have also been built to manufacture Belkozin artificial sausage-casings and container materials.

At the same time, the newspaper's critical remarks have been justified. Production capacities for processing the crude products of animal-raising are not always adequate and processing on schedule presents problems in certain places.

[Zarayev] In building new enterprises, should the interests of agriculture not always be taken into consideration, specifically whether the radii along which livestock is shipped are being shortened?

[Kharitonov] We consider this problem to be of paramount importance in our work. The 12th Five-Year Plan foresees construction of new enterprises only at production sites, that is, near kolkhozes and sovkhozes. In fact, the resolutions of the May (1982) Plenum of the CPSU Central Comittee assigned this very task to the branch along with that of utilizing secondary resources more fully in order to achieve complete processing of livestock without loss. Moreover, there has been a deliberate and systematic reduction, in recent times, of the radii along which unprocessed animal products are transported. Now the mean radius in livestock transport is 82 kilometers. In some republics, in Belorussia and the Baltic for example, this indicator

is significantly lower. At the same time, livestock in the KaSSR is transported for up to 200 kilometers and in individual oblasts, for instance Aktyubinsk, Kustanay, Turgay and Uralsk, the distances exceed 500 kilomenters. An analogous situation prevails in a number of oblasts of the Ukraine, Kirghizia and the RSFSR, especially in remote rayons of Siberia and the Far East.

In order to shorten the livestock-shipping radii, the ministry plans for the 12th Five-Year Plan a program to construct small enterprises to process 30-50 tons of meat per shift and about 100 refrigeration-equipped slaughterhouses, capacity 10-20 tons.

[Zarayev] To be specific, let us see how the material and technical base of the meat branch is developing in the oblasts about which the newspaper has written.

[Kharitonov] I don't object. Let's take the Maritime Kray. In the town of Nakhodka there, construction was to have been completed in 1987 on a combine with a per-shift capacity of 10 tons of meat and 15 tons of sausage; in 1985 we face the task of introducing small supplemental capacities in the Spassk-Dalniy meat-processing combine. Much remains to be done in the future. This includes the construction of a meat-processing plant in Vladivostok and reconstruction of the Lesozavodsk combine and, in addition, at the beginning of the 90's, the construction of an enterprise in Dalnerechensk.

In Vologda Oblast this year, supplemental capacities will be put into operation in the Vologda combine. Moreover, in the next five-year plan reconstruction of the combines in Kichmengsko-Gorodetskiy and Velikoustyuzhskiy is projected. In 1987-88 the Lubenskiy meat-processing combine in the Poltava region is to be expanded. Equipment will be renewed in many operating enterprises there, including that of the Poltava meat-processing combine, on which rebuilding is already being carried out.

[Zarayev] In February SELSKAYA ZHIZN reported the difficulties that the Poltava kolkhozes encounter when they deliver their livestock. In Chutovskiy Rayon alone the retention of animals for one month added up to 250 tons of grain forage and 820 tons of green feed.

[Kharitonov] A number of Poltava farmers have had problems of this type. We understand that we are closing only slowly the gap between the required capacities and those in operation. In this five-year plan the branch will introduce new capacities for 2,360 tons of meat per shift. But unfortunately there will still be a lack.

We consider our task to consist primarily in using capital investments as effectively as possible, namely those made in the development of the branch in the RSFSR and particularly in Orenburg Oblast, Krasnoyarsk Kray and other Eastern regions, as well as in the Ukraine, Kazakhstan and Kirghizia.

[Zarayev] But what about fulfillment of the plan for the introduction of capacities?

[Kharitonov] Last year the plan for the introduction of meat-processing capacities was fulfilled. According to the total of the plans for towns, fulfillment is also expected in 1985 and in the 11th Five-Year Plan as a whole, although we still see many weak points. Contract organizations of almost all construction ministries and departments are equipping our enterprises; unfortunately not all of them fulfill their obligations on time.

Work is proceeding slowly on the following building sites: under the USSR Ministry of Industrial Construction in Tikhoretsk, Krasnodar Kray and Kalachinsk, Omsk Oblast; under the USSR Ministry of Construction in Roslavl, Smolensk Oblast and Kalach, Voronezhsk Oblast; under the USSR Ministry of Rural Construction in Torbeyevo, Mordovian ASSR and under the Ministry of Transport Construction in Nakhodka, Maritime Kray. And this list is not exhaustive. We should also point out that in places where local party and Soviet agencies pay attention to the development of the material and technical base of the meat and dairy industry, plans for capital construction are being fulfilled and capacities introduced in a timely fashion. For example, reconstruction is progressing well in the case of the Perm, Ufimskiy, Donetsk and Mogilev combines.

The construction of new enterprises is not the only road taken in the development of the material and technical base of the meat-processing industry, for equipment renewal and reconstruction of existing facilities are also being carried out. In the 11th Five-Year Plan, 45 percent of all means invested in the branch are directed toward this goal. In the 12th Five-Year Plan this indicator will increase to 50 percent inasmuch as such expenditures are recovered two to three times more rapidly than those for new construction.

However, the successful completion of these projects depends not only on the customers but also on the builders and planners. Incidentally, they do not like to undertake equipment renewal in enterprises or their reconstruction. To a certain extent this is understandable. There is insufficient machinery for their work under the crowded conditions of equipment renewal at a production facility. The size of premium payments for introduction of capacities depends on the volume of construction and installation work, yet in reconstruction of a facility the volume of construction and installation work per unit of introduced capacity is lowered by comparison with the outfitting of new enterprises.

Machine building owes the meat-processing branch something. Lack of up-to-date equipment causes delays in re-equipping the meat combines; for example, they lack machines for production of dry animal feeds and assembly lines for the preservation of hides in brine.

[Zarayev] Well, let's say the new capacities have been introduced. What about putting them into operation?

[Kharitonov] Unfortunately, as investigations have shown, new enterprises whose deadlines for starting up capacities have expired have had considerable difficulties in making full and timely use of them, chiefly with respect to raw material and also the irregular arrival of livestock for processing, as well as non-fulfillment of contractual agreements. The central expediting service is being introduced slowly owing to the farms' lack of preparedness and failures of coordination in transport. Moreover, lack of cadres in our enterprises and a housing shortage faced by workers have an adverse effect. Other organizational inadequacies exist in our branch in regard to animal raisers, transport personnel and representatives of other APK branches. If you consider that the production of over 40 percent of all foods, in terms of cost, falls to the share of the Ministry of the Meat and Dairy Industry, then you can easily picture what important reserves are tapped by the regulation of these conditions and by the further development and improvement of the material and technical base of the branch.

9582

LIVESTOCK

DEMIN, OFFICIALS REVIEW TAJIK MEAT, DAIRY INDUSTRY DEFICIENCIES

Dushanbe KOMMUNIST TADZHIKISTANA in Russian 24 Jul 85 p 2

[Article by G. Papyrina: "Be Able to Work in the Spirit of the Time: From the Expanded Board of the Ministry of the Meat and Dairy Industry of the Republic"]

[Text] What sort of results has the meat and dairy branch of the republic attained by the half-year mark? How will it develop further? What has scientific and technical progress predetermined to its enterprises? This was the topic of discussion by the Expanded Board of the Ministry of the Meat and Dairy Industry, which took place in Dushanbe. The tenor of its work was predetermined by the participation of V. I. Demin, first deputy minister of the USSR meat and dairy industry; Kh. N. Nasredinov, secretary of the Communist Party Central Committee, TaSSR and A. N. Maksumov, deputy chairman, TaSSR Council of Ministers. Exactingness was what characterized the discussion here. Exactingness is in the spirit of the April (1985) Plenum of the CPSU Central Committee, where it was stated that everyone ought to attend to his task and conscientiously complete his immediate duties.

At present, the meat and dairy branch of the republic cannot boast of high indicators. In communications from Minister T. M. Myrzayev and S. Ya. Abdullokhodzhayeva, his deputy, a detailed picture was presented concerning the state of affairs and the existing faults in the work of the ministry and enterprises subordinate to it were pointed out. Of these enterprises, 43 percent did not fulfill their plan for the half year with respect to productive labor or the required quantitative level of production being offered for sale, which evokes fair criticism from the purchasers.

The causes of this situation lie in weak technical supervision, insufficient educational work in the collectives and diminution of the exactingness and accountability of managers and specialists. Today there is little evidence

of the measures mentioned by such speakers as, for example, M. Kamildzhanov, director of the Dushanbe dairy combine. Here, in the light of the results of inspection agencies, those at fault are severely disciplined. But they begin to sound the alarm only after they have pointed out shortcomings indirectly. In the collective itself there is no sure preventive against waste.

The raw materials problem in the branch is severe. The enterprises have a poor connection to agriculture and complaints are frequently heard that raw material of low quality is delivered, which is blamed for non-standard production. Precisely this explanation was heard at the board session from some managers of industrial enterprises. This is partly caused by irregularity of deliveries and the insufficiency of refrigeration facilities, leading to spoilage of dairy products. One can scarcely take these excuses seriously. After all, the means of transportation were turned over to the producers so that milk could be shipped from the farms in sufficient time. And if the on-site intake of farm products has still not been facilitated everywhere by now, the ministry and its experts are chiefly at fault. What can one expect; on whom can one rely? No one will come from the sidelines and do the work for them.

Obviously, such an approach ought also to be taken toward the contract form of labor organization. Altogether 12 percent of the collectives in the branch have been converted to operation on a self-supporting basis by now. That is little, very little!

It is already well known that the meat and dairy industry will be included in an economic experiment, starting with the new year. Fulfillment of the plan for agreements will become one of the basic indicators of valuation. As yet the ministry is not ready for work under the new conditions. As of the half-year mark, over half the enterprises had not met the fundamental condition of the agreement—delivery of a full volume and assortment of products. Sometimes the easy way of fulfilling the plans is chosen. Thus the Leninabad dairy combine, with the tacit consent of the ministry, produces more expensive goods rather than those ordered.

The collectives of the branch face a major task in the development of socialist competition and growth of its effectiveness. Outwardly, in a way, a lot is being done. Each year the collectives take on obligations and clarify the boundaries set to their work and the means of accomplishing it. Specialists of the ministry have been sent frequently to help in a practical way at the site. But, in the minister's words, considering the outcome of these trips, no one oversees the course of application of the measures recommended. Thus it happens that there are many checks but no visible results. Workers from the ministry, it was emphasized at the board session, must radically change their style and working methods and show greater efficiency, concern for specifics and competence.

Included in the basic tasks facing the branch is the acceleration of scientific and technical progress. Today the majority of enterprises work with morally and physically obsolete equipment and a high proportion of manual labor. At the same time, over several years, uninstalled equipment gathers dust in the warehouses while plans for the introduction of new technology go unfulfilled.

Today the managerial qualities of the contemporary director are determined by a capacity to sense what is new and persistently bring it to life and by the role of standard-bearer of scientific and technical progress.

"A new approach is needed, as is enthusiasm for this work," said V. I. Demin, the first deputy minister of the meat and dairy industry of the country. "But other managers prefer to live as before, quietly swimming with the current. And the ministry doesn't bother them or ask uncomfortable questions about obvious omissions in their work. Today one cannot mark time."

This thought is graphically illustrated by the fact that in more than one speech by a manager, a clear and distinct statement was to be heard as to the direction in which an enterprise ought to develop in order to be brought up to a new technical level. In the work of managers and specialists there is little initiative, healthy spirit of enterprise or creativity in the approach they take to operations.

At the board session the dilemma was stated directly: either work and learn or clear your place for a more highly prepared specialist. Managers ought to assume personal responsibility for the conduct of technology policy in the branch. There can be no other evaluation of their activity in today's world.

In the 12th Five-Year Plan we are faced with taking a decisive step along the road of intensification of production. Without a systematic, comprehensive approach, the achievement of this goal is unthinkable. Here the republic's program of development for the branch ought to be closely coordinated with a unified system within the country's meat and dairy industry. However, no comprehensive plan of technological retooling has been presented from within the republic ministry up to now.

The situation which has developed requires reactivation and reorganization of the party organization in the ministry. A central focus ought to be the problems of technological restructuring of the branch, rational allotment of resources and the education of cadres in the spirit of new ideas. Communists are called on to spearhead work aimed at starting the meat and dairy industry on an intensive road of development, that is, on the very road along which the party is leading the economy.

9582

AGRO-ECONOMICS AND ORGANIZATION

GOSBANK OFFICIAL ON DEFICIENCIES IN CONTROL, USE OF RAPO FUNDS

Moscow EKONOMICHESKAYA GAZETA in Russian No 37, Sep 85 p 15

Article by V. Kochkarev, chief of the Administration for Issuing of Credit and Financing of Kolkhozes, Agroindustrial Associations and Interfarm Organizations of USSR Gosbank: "How Are the RAPO Funds Being Used?"/

Text/ Following the formation of the agroindustrial associations, centralized funds began to be created in them: production development, material incentive and social-cultural measures and housing construction. Last year, enterprises and organizations added 562 million rubles to these funds, including 340.5 million rubles for the production development fund, 126 million rubles for the material incentive fund and 95.5 million rubles for the fund for social-cultural measures and housing construction.

The principal portion of these funds is formed by means of farm resources. Kolkhozes, sovkhozes and interfarm organizations accounted for 85 percent of the total amount added to the centralized funds of agroindustrial associations during 1984. At the same time, other RAPO /rayon agroindustrial association/partners are allocating very small amounts to these funds, as can be seen in the following table.

Additions To Centralized Funds of Agroindustrial Associations in 1984

Participants in Greation of Funds	Millions of Rubles	In % 46.6
Kolkhozes	262	
Sovkhozes	180	32.0
Interfarm organizations	36	6.4
Selkhoztekhnika	16	2.9
Enterprises of the meat and dairy industry	11	2.0
Food industry enterprises	9	1.6
Land reclamation organizations	4	0.7
Other	44	7.8
Total	562	100.0

Where the Resources Go

Inspections have revealed serious shortcomings in the formation and use of centralized funds. In many instances, there is an absence of proper control

over the complete and timely delivery of resources into the centralized funds. This led to a situation wherein, during the past year, 279 million rubles less than the amount expected were added to these funds, including 247 million less rubles at the rayon level and 33 million less rubles at the oblast, kray and republic (ASSR) levels. Many agroindustrial associations in the RSFSR, the Ukraine and Uzbekistan fell considerably behind in carrying out the plan for adding resources to the centralized funds.

The enterprises and organizations of some ministries added resources to these funds in amounts ranging from 40 to 60 percent of the plan and some even less. Thus enterprises and organizations of RSFSR Minpishcheprom /Ministry of the Food Industry/ fulfilled by only 38 percent their plan for adding resources to the centralized funds, Minmyasomolprom /Ministry of the Meat and Dairy Industry/ for the Uzbek SSR -- by 33, Minvodkhoz /Ministry of Land Reclamation and Water Resources/ for Tajikistan -- by 29 percent and Goskomselkhoztekhnika for the Kirghiz SSR -- by 30 percent.

Nor is all going well in connection with the use of the centralized funds. Considerable amounts of these resources have turned out to be "frozen" in the accounts of agroindustrial associations. Thus, in early 1985 the unused surplus resources in these funds amounted to 368 million rubles and this exceeded their annual expenditure by a factor of 1.4. The surplus resources of the centralized funds increased during the year by 265 million rubles, or by a factor of 3.6.

Over the past year, the agroindustrial associations allocated to the farms only 297 million rubles in all for carrying out measures by means of the centralized funds. This amounted to 44 percent of the total amount of funds created, including 46 percent at the rayon level and 35 percent at the oblast, kray and republic (ASSR) level. Of the mentioned amount, 117 million rubles were allocated to kolkhozes and 51 million rubles to sovkhozes. This was considerably less than the share participation by the farms in forming the funds. For example, for carrying out various measures using the resources of the centralized funds, the RSFSR agroindustrial associations allocated to the kolkhozes 24 percent of the total amounts intended for these purposes for a share participation in the formation of the centralized funds of 36 percent and in the case of the Georgian SSR -- 48 and 65 percent respectively. Roughly the same situation is taking place in Azerbaijan, Tajikistan and Kirghizia.

There have been incidents of centralized funds being diverted for purposes not associated with the development of the agroindustrial complex. For example, The Balvi Agroindustrial Association in the Latvian SSR allocated 15,000 rubles of the centralized fund for production development for the capital repair of an administrative building. In Ruzayevskiy Rayon in Kokchetav Obiast, 20,000 rubles were transferred from the centralized fund for production development to the raykomkhoz /city district department of mumicipal services/ for share participation in the construction of a television tower.

The Tashauz Oblast agroindustrial association, using the centralized fund for social-cultural measures and housing construction, spent 10,000 rubles for acquiring a brass band for an agricultural technical school. Unfortunately, many such examples can be cited.

At the same time, there are also many examples of the efficient use of the mentioned resources. In Belgorod Oblast, for example, construction work has been completed on 19 shops for the production of dry whole milk substitute representing a capability of 18,000 tons and on two shops for the drying of pulp residue for 120 tons daily. A mineral fertilizer warehouse complex has been built at the Kolkhoz imeni Ilich kagarlykskiy Rayon in Kiev Oblast at an estimated cost of 703,000 rubles. At the Rossiya Kolkhoz in Kasimovskiy Rayon in Ryazan Oblast, the centralized fund for production development was used for the construction of an aircraft take-off strip and also for a technical servicing station for tractors.

Incentives Are Being Issued

There have been instances of considerable sums from the centralized funds for material incentives of agroindustrial associations being used for awarding bonuses and for maintenance of the administrative staffs of the agroindustrial associations. For example, expenditures for paying out bonuses to workers attached to the agricultural administration amounted to 61 percent of the centralized material incentive fund for the Suzemskiy Rayon agroindustrial association and in the case of Komarichskiy and Pogarskiy rayons -- 54 and 45 percent respectively.

In Vologda Oblast, of 106,000 rubles in the material incentive fund for the oblast agroindustrial association, 46,500 rubles were spent for awarding bonuses to workers attached to the oblast's agricultural administration. The centralized material incentive fund is often used for paying out wages and also various types of additional payments to workers attached to the staffs of agroindustrial associations.

There have been instances of farm workers being awarded bonuses for the carrying out of functional obligations. For example, in accordance with a decision handed down by the Kokchetav Oblast agroindustrial association, the centralized material incentive fund was used for issuing funds to oblast associations: 20,000 rubles to the meat industry and 5,000 rubles to the dairy industry, for the timely acceptance, slaughtering and processing of livestock and for the acceptance of milk and dairy products from kolkhozes and sovkhozes. The Kostrovskiy Sovkhoz of the Istrinskiy Rayon Agroindustrial Association in Moscow Oblast was paid a bonus in the amount of 300 rubles for the fine organization of primary and bookkeeping accounting.

The use of centralized funds for satisfying the requirements of various public and other organizations and also for the carrying out of individual measures is being tolerated.

Thus the Buyskiy RAPO in Kostroma Oblast used the centralized fund for social-cultural measures and housing construction for making a payment of 700 rubles to cover the cost of a trip by farm leaders to an oblast conference. In the Yakut ASSR, 750 rubles were withdrawn from the centralized material incentive fund of the Vilyuyskiy RAPO for acquiring valuable gifts for the jubilee celebration of the city of Vilyuysk. The Amginskiy RAPO spent 600 rubles for awarding bonuses to the members of a committee for the carrying out of republic races.

The interests of the work require that the resources of centralized funds of agroindustrial associations be used primarily for developing the elements of agricultural production, for the technical reequipping of agriculture and also for furnishing financial assistance to weak farms.

It is hardly advisable to use the resources of centralized funds for social-cultural measures and housing construction of an agroindustrial association for satisfying the economic requirements of agricultural administrations, enterprises and organizations which are not included in the structure of an agroindustrial association.

The economically sound use of the resources of centralized funds will promote improvements in the efficiency of agricultural production and it will strengthen the economies of the agroindustrial associations.

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AGRO-ECONOMICS AND ORGANIZATION

RSFSR OFFICIAL ON ECONOMIC EXPERIMENTS IN REPUBLIC APO'S

Moscow EKONOMICHESKAYA GAZETA in Russian No 36, Sep 85 p 16

[Interview with Gennadiy Vasil'yevich Kulik, chief of the main economic planning administration and collegium member of the RSFSR Ministry of Agriculture: "Experiments in Agro-Industrial Associations;" date and place not specified]

[Text] /At one of its regular meetings the Politburo of the CPSU Central Committee supported the proposal of the RSFSR Council of Ministers and local party and soviet organs on conducting economic experiments for improving management and the economic mechanism in the republic's individual agro-industrial associations.

/The editorial staff requested Gennadiy Vasil'yevich Kulik, chief of the main economic planning administration and collegium member of the RSFSR Ministry of Agriculture to tell about these experiments./ [in boldface]

[Question] In which agro-industrial associations is it planned to conduct economic experiments and what is the essence of them?

[Answer] Beginning 1 January 1986, experiments for improving the management system and the economic mechanism will be conducted at kolkhozes, sovkhozes and other enterprises included in the agro-industrial associations of Stavropol Kray and Vologda Oblast, in Glazunovskiy Rayon of Orel Oblast, Kinelskiy Rayon of Kuybyshev Oblast, Pritobolnyy Rayon of Kurgan Oblast, Ordynskiy Rayon of Novosibirsk Oblast, Krivosheinskiy Rayon of Tomsk Oblast and Aleyskiy Rayon of Altay Kray.

In Stavropol Kray the economic experiment provides first of all for expanding economic independence and converting agricultural enterprises to self-support. In Vologda Oblast the experiment is aimed at improving the system for management of an agro-industrial complex and the economic relationships of the partners that are included in it. Work will be done in the rayon agro-industrial associations that were cited above on improving the management system and economic relationships, as well as on expanding economic independence and converting enterprises to self-supporting status \(\subseteq \text{samookupayemost} \subseteq \).

[Question] What is changing in the system for planning the operations of enterprises of agro-industrial associations?

[Answer] A lot is changing. Right now the plans of kolkhozes, sovkhozes and other enterprises are overburdened with indicators that are being approved by higher organs, and that restrains the initiative of enterprises, leads to a lack of coordination of various kinds, and sometimes adversely affects production results. Radical changes in planning the operations of enterprises and organizations of agro-industrial associations that are being converted to the economic experiment are also explained by this. What do they consist of?

First of all, the number of indicators that are being approved in accordance with centralized procedures is being reduced considerably. It was established that production volumes and sales to the State of agricultural products are being determined independently by kolkhozes, sovkhozes and other agricultural enterprises. In this regard, as a rule, they must not be below the average annual level that was attained during the preceding five-year plan. Plans that were developed for the sale of products to the State are being approved in accordance with established procedures.

Beginning in 1986, deliveries (in the form of stable norms for the five-year plan) to the all-union and republic meat, milk, egg, potato, vegetable, fruit and grape funds, as well as the delivery of products from the all-union and republic funds, are approved in the economic and social development plans for Stavropol Kray and Vologda Oblast. State purchase plans for grain, sunflowers, sugar beets, wool and other kinds of agricultural products are being approved in accordance with established procedure for a kray and an oblast.

A change like this in the planning practice considerably increases the responsibility of local soviet and economic organs for organizing supply of the population. Now after fulfilling obligations for deliveries to the all-union and republic funds the entire remaining portion of products remains at the disposal of local organs for the support of trade organizations with it.

In this regard, plans for the production and sale of products for a kray, an oblast and rayons are defined as the sum total of plans that are developed by business organizations, and they are considered by the planning organs during the compilation of economic and social development plans. The ispolkoms of councils of people's deputies bring up to the procurement organizations the plans that were developed by business organizations for the sale of products to the State, and on the basis of which contracts are concluded with kolkhozes, sovkhozes and other agricultural enterprises.

The following indicators are being brought up and approved for enterprises in accordance with centralized procedures during development of the economic and social development plan by higher organizations:

--in terms of finances: payments to the State budget and allocations from the budget;

--in terms of material and technical support: delivery volumes (norms) of machinery, equipment, mineral fertilizers, mixed feeds, fuel, building materials (for repair and operating needs), and other producer goods and materials that are being distributed in accordance with centralized procedures; and

--in terms of capital construction: the limits of contract planning operations and delivery volumes of building materials for carrying on construction through the method of operations using an organization's own resources.

It's quite obvious that a planning procedure like this creates a new approach to the organization of production and makes it possible to more fully use available reserves, and that, since the business organization has nothing to fear, the high level that is achieved in a single year will be assumed as the basis for next year's plan. In short, a wide range is given here to the initiative and enterprising ability of kolkhoz and sovkhoz managers, but an annual increase in sales volumes of products to the State remains the main task of business organizations.

[Question] Is the procedure being changed for planning the wage fund at enterprises that are converting to conditions of the experiment?

[Answer] The procedure for planning the wage fund is being changed too. Today it is approved by higher organizations for sovkhozes and other State enterprises. This frequently leads to different kinds of distortions. In practice it's often possible to encounter such a scene where labor productivity at a sovkhoz is lower than that at a neighboring business organization, but the workers' earnings are considerably higher. The responsibility of business organizations for economical use of the wage fund is also insufficient. Hence there are numerous cases when a wage increase outstrips the increase in labor productivity and that has an adverse effect on all the financial indicators.

Now sovkhozes and other State agricultural enterprises under conditions of the experiment will plan the wage fund independently. The wage fund is calculated depending on the production volumes of products. It will be done like this. The basic wage fund is determined at the business organization on the basis of actual costs during the last 2 years calculated on 100 rubles of gross production. The wage fund is increased by 0.8 percent for each percentage of increase in production. Thus it will be done both during compilation of the economic plan and at the time of actual issuance of the wage plan by institutions of Gosbank.

Serious economic penalties are provided for overexpending wages and outstripping their increase above the increase in labor productivity. If wages in a business organization increase at higher rates than labor productivity, then the material bonus fund will be reduced by a corresponding portion, and these totals will be directed towards an improvement in production efficiency, retooling and integrated mechanization.

[Question] How will a business organization generate a capital construction plan, if it won't be approved among the national economic plan indicators by a higher organization?

[Answer] The question is a very interesting one. The fact of the matter is that today, when capital investment volumes are being determined by higher organs, the managers of many enterprises are striving to obtain as much capital

as possible for capital investments and to have as few quotas as possible for deliveries of products to the State.

Everything in the experiment will be constructed totally on other principles. As a matter of fact, the business organizations of Stavropol Kray and the Glazunovskiy, Kinelskiy, Pritobolnyy, Ordynskiy, Krivosheinskiy and Aleyskiy RAPOs[rayon agro-industrial associations] are being converted to operating on the principles of self-support. They will defray all their expenses by virtue of capital that is obtained from the sale of products, services that are rendered, and operations that are performed. After fulfilling the quotas of payments into the budget at a certain percentage of the profit that was actually obtained, the entire remaining accumulated total remains at the disposal of an enterprise and is used at its discretion. The business organization itself decides how much and where to direct the profits, and at the discretion of the enterprise itself a material incentive fund, social and cultural measures fund, reserve and other funds can be created by virtue of the obtained profit, but the remaining profit and other available sources of capital will be directed towards capital investments.

Thus, proceeding from specific tasks and the condition of the production base, a collective itself determines the capital investment volumes. Bank credits too will have a share in this matter as well; moreover, the procedure for issuing them is considerably simplified.

In order not to infringe upon the economic interests of kolkhozes and sovkhozes, the soviets of kray and oblast agro-industrial associations were given the right to approve for business organizations where the experiment is being conducted markups to the purchase prices for agricultural products within the limits of all current payments and budgetary allocations, which were stipulated for business organizations in the 1985 plan for financing capital investments and for other purposes.

In order to render assistance to the economically weak and other business organizations, the soviets of agro-industrial associations were authorized to create a centralized reserve fund by virtue of deductions up to 20 percent of the profit of sovkhozes and other State enterprises and of the net income of kolkhozes (with their concurrence). The assets of this fund can be directed towards financing capital investments and capital repair, replenishing the shortfalls of working capital, rendering assistance, and towards other needs.

The procedure for planning and financing capital construction is simplified considerably in view of the conversion to self-support. Now the business organization managers themselves have the right to approve planning estimates for the construction of projects with a cost up to 1 million rubles, from 1 to 2 million rubles in coordination with rayon agricultural administrations, from 2 to 4 million rubles in coordination with kray and oblast agricultural administrations, and over 4 million rubles in coordination with the RSFSR Ministry of Agriculture and RSFSR Gosplan.

In order to open financing for the construction of a new project, only four documents will be presented to the bank: the title lists of new construction

projects, which the business organization managers themselves have the right to approve, a finance plan that was compiled independently on the basis of its own production plan, the certificates on guaranty of planning estimates, and a contract for fulfilling contractual operations.

[Question] What measures are planned to raise the personal interest and responsibility of all collectives of enterprises for the final results of an operation?

[Answer] Further extension and expansion in all business organizations of using the brigade contract, which has proven itself, is provided for by the conditions of the experiment. A norm-setting quota for the production of products of one kind or another is being established for a brigade and a link. When this quota is exceeded, the managers of enterprises are authorized to distribute a portion of the products, which were obtained above this norm, in the form of a real payment of bonuses or, according to the workers' desires, in a monetary form. The same thing applies to construction too. The brigades here will be paid on a lump wage basis and provided with incentives for putting projects in operation ahead of schedule.

Beginning 1 January 1986, in order to increase the responsibility of managers and specialists of enterprises that are included in agro-industrial associations and agricultural administrations of rayispolkoms, oblispolkoms and krayispolkoms, it was authorized to convert them to a wage depending on the obtained products. In the course of a year the workers will be paid an advance payment on a scale of 80-90 percent of their salaries, and the final settlement will be made at the end of the year depending on the volume of produced products. It was authorized to introduce a payment system like this for managers and engineering and technical personnel of the Agricultural Chemical Association, Agricultural Equipment Association, and construction and other organizations that are a part of agro-industrial associations.

Extensive opportunities were presented for improvement in the system of paying bonuses. If necessary, it was authorized to introduce in place of the current ones other indicators for the payment of bonuses to leading workers of enterprises that are participating in the experiment with regard to specific production conditions and within the limits of the sum total of payments that is established by current law. This means that the soviets of agro-industrial associations can develop their own conditions and indicators for providing an incentive to the leading workers and specialists of enterprises.

It was authorized as well to establish a wage for business organization managers, specialists and sovkhoz workers, and other agricultural enterprises in accordance with final production results depending on the total of obtained gross income, including the current payment of bonuses for individual indicators of the development of agriculture and animal husbandry.

What is the point of such a form of incentive? Now the sum total of material incentive will depend on two factors: an increase in production volume and a reduction in costs per unit of output. This eliminates the multiplicity of

different operating forms of material incentive for particular indicators that sometimes aren't the main ones.

In conclusion, I would like to note that during the course of conducting the indicated experiments many situations will be defined more precisely and supplemented on the basis of analyzing management practices under the new conditions. As a result, we'll succeed in adjusting the basic links of the economic mechanism, which will make it possible to effectively influence an acceleration in the development of agricultural production and an improvement in its effectiveness.

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AGRO-ECONOMICS AND ORGANIZATION

CRITICAL COMMENTARY ON BELORUSSIAN RAPO MANAGEMENT

Minsk NARODNOYE KHOZYAYSTVO BELORUSSII in Russian No 8, Aug 85 pp 30-32

Article by V. Tarasevich, candidate of economic sciences and head of a sector for sociological studies at BelNIIEOSKh; V. Leshkevich, candidate of economic sciences and senior scientific worker in the sector for sociological studies at BelNIIEOSKh: "Who Is the Boss in a RAPO?"/

Text/ Rayon agroindustrial associations have been in operation in the republic for 3 years now. Experience has shown that in those areas where the RAPO /rayon agroindustrial association/ councils have been headed by experienced and skilled production organizers, individuals who have mastered well the new methods of administration, considerable success has been achieved in overcoming departmental isolation. The responsibility of all partners for increasing the production and procurements of agricultural products and for the quality and schedules for carrying out work and rendering services has been raised. But the RAPO's still have many problems.

Let us begin with some positive examples. There is the experience accumulated by the Slutskiy RAPO. Considerable improvements were achieved here in interfarm relationships. On the basis of a decision by the council, mechanized detachments were created within rayselkhoztekhnika for hauling sugar beets from the farms and for the centralized importing of mixed feeds. The work of rayselkhozkhimiya was coordinated and this made it possible in 1984 to over-fulfill the annual task for the delivery of composts by 100,000 tons and to apply mineral fertilizers and lime the soil in a high quality manner. By means of the centralized funds for production development, more than 1 million rubles were allocated for the construction of installations of an inter-farm nature and for providing assistance to economically weak farms. Better solutions were found for social problems. An inter-farm young pioneer camp is presently under construction in the rayon.

Definite successes have been achieved by the Vileyskiy Rayon Agroindustrial Association, where a search continues for the means and opportunities for further improving the forms and methods for administering agricultural production, raising the effectiveness of use of material, labor and financial resources and adjusting the operations of the agricultural industry as a single enterprise of the national economic system. In 1983, centralized RAPO funds

were created here for the purpose of developing more completely all APK _/agroindustrial complex/ branches; the assignments to these funds are carried out on a differentiated basis. Thus the material incentive fund is formed by means of assignments of up to 5 percent of the funds allocated for this purpose at kolkhozes and other organizations. If the material incentive fund ranges up to 5 kopecks per ruble of earnings, then the assignment is 1 percent, if it is 5.1 - 10 kopecks -- 3 percent and if higher than 10 kopecks -- 5 percent. In conformity with an estimate approved by the RAPO council, 63 percent of the centralized material incentive fund is expended for paying out bonuses to collectives and individual workers for having achieved the best indicators in the socialist competition. Guided by the decrees of the CPSU Central Committee and USSR Council of Ministers entitled "Improving the Administration of Agriculture and Other Branches of the Agroindustrial Complex" and "Improvements in the Economic Relationships of Agriculture With Other Branches of the National Economy," a review was undertaken of the rates for the technical servicing of equipment on livestock farms, tractors and agricultural machines, the running-in of new equipment and for the carrying out of many types of agricultural operations. In accordance with a decision handed down by the RAPO council, a concentration of amortization assignments for the capital repair of land reclamation systems is being carried out annually in the interest of achieving more efficient use of drained lands. During the period following the creation of this fund, drainage systems on an area of more than 3,000 hectares were placed in reliable working order and intra-farm roads were built. During last year alone, 225,000 rubles were expended for these purposes.

The RAPO council is exercising control over the introduction of the collective contract system. In 1984, 41 brigades and 5 teams in farming and 28 livestock farm collectives converted over to this progressive form for organization and wages. An experiment is being carried out in connection with introducing wages for kolkhoz specialists and leaders based upon the quantity and quality of the products obtained. Indicators have been developed and approved for evaluating the quality of the work being performed by all kolkhoz and sovkhoz leaders and chief specialists. The plans call for this system to be extended in the near future to cover the leaders and specialists attached to the agricultural administration of the rayispolkom /rayon executive committee/.

Of considerable importance is the fact that the forms for ideological and educational work in the rayon have been revised. The results of the socialist competition are presently being summarized not only at the end of the year but also quarterly and monthly. Moreover, the competition includes all of the collectives of the RAPO enterprises and organizations. All of this is promoting accelerated improvements in the economy of the rayon's APK, the fulfillment and over-fulfillment of the planned tasks for the production of milk, meat, grain, potatoes, vegetables and other products and an increase in the profitability level for agricultural production. The leading operational experience of the Vileyskiy RAPO for 1984-1985 is being displayed in the pavilion for the economics and organization of agricultural production of the USSR VDNKh /Exhibition of Achievements of the National Economy of the USSR/.

Other positive examples illustrating the work of rayon agroindustrial associations could also be cited. If an attempt is made to summarize the almost 3 years of RAPO operational experience, then it should be mentioned that

the new organ of administration has improved somewhat the management of all agricultural enterprises and organizations. Under present conditions, the party and soviet organs have been partially freed from having to carry out functions not considered typical for them, functions associated with coordinating the work of enterprises and organizations of the agroindustrial complex. The work of RAPO's has opened up great opportunities for displaying efficiency and flexibility in the handing down of decisions requiring agreement among production organizations of various departmental subordinations.

However the councils of agroindustrial associations are not always making full use of the rights extended to them. As a result, they are missing out on an opportunity to effectively coordinate the work of RAPO enterprises and organizations in connection with planning, the establishment of prices and rates and the formation of centralized funds. In some RAPO's in Minsk Oblast, for example, departments for inter-branch communications have not even been created.

On the whole, the agroindustrial complex has still not become an independent object for planning and administration, as projected during the May (1982) Plenum of the CPSU Central Committee. The association councils have not been assigned the functions and authority which would enable them to plan the work of all organizations belonging to the APK or to distribute logistical resources among them.

Therefore, in order to achieve completeness and balance in the plans, a conversion should be carried out over to a single plan for the economic and social development of the APK. The financial and logistical resources and capital investments should ideally be allocated for the APK as a single line on a normative basis, with no breakdown by branches or enterprises and with the final results being taken into account.

Unified all-round planning within the APK system brings about changes in the methods and technology for planning. Thus the programs for agricultural development must be included as an organic part in the plans for APK development and they must be coordinated with its branch, territorial and other functional elements. Under such conditions, an increase takes place in the role played by contractual relationships. Long-term economic contracts must serve as the foundation for composing a plan and not conversely. Moreover, they must encompass both the horizontal (inter-branch) and vertical relationships (between the organs of administration at various levels).

Certainly, the process of establishing and forming a new rayon element for agricultural administration is continuing. Life is constantly introducing corrections. The practice of economic construction is posing a task of such complexity that it will be impossible to achieve an immediate solution even in the face of prepared recommendations. They require consistent and complete work aimed at further improving the administration of a branch APK.

As is known, the enterprises and organizations included in a RAPO retain their departmental subordination. Just as in the past, each partner has his own production-financial plan, his own official schedule and his own higher authority. It is for this reason that their production interests often do not coincide and are not coordinated with the interests of the kolkhozes and

sovkhozes, even though agriculture is the main branch of the APK. And, as a result, as stated by deputy to the USSR Supreme Soviet, Hero of Socialist Labor and chairman of the Progress Kolkhoz in Grodnenskiy Rayon Aleksandr Iosifovich Dubko in an article entitled "The Land Requires One Master" (IZVESTIYA, 20 May 1985), each RAPO member does his own rowing and at times does not even halt to assist a nearby partner. Just as in the past, each partner thinks only of himself and displays concern only for his own interests. For example, here is what happened on this farm in the spring of this year. In early May there were heavy downpours of rain. But the machine operators of Selkhozkhimiya, acting as though nothing was the matter, applied mineral fertilizer to the sowings. The kolkhoz chairman had to terminate this work. At the end of the work day, the machine operators had to go to the office and sign a document concerning the amount of time wasted and they had to make payment for their unjustified shirking.

Similar problems are being observed in the production affairs of kolkhozes and sovkhozes of the Grodno Meat Combine and the Skidel Sugar Plant.

Just as in the past, the partners are receiving many complaints regarding the low quality of services. Quite often the quality of the products being received is low and many additions and counting mistakes are being encountered. This is borne out by the following fact. In 1984 the workers at a STOZh /stantsiya tekhnicheskogo obsluzhivaniya zhivotnovodcheskikh ferm; station for the technical servicing of livestock farms of Kruglyanskiy rayselkhoztekhnika in Mogilev Oblast fulfilled their plan mainly as a result of percentages and the preparation of fictitious documents. In issuing spare parts to farms, payments were often made as though the work itself had been carried out. The work was actually carried out in the various areas by kolkhoz and sovkhoz fitters. _The same holds true with regard to the work of a PMK /mobile mechanized column/ for the installation of farm equipment. Last year the Put Lenina Kolkhoz, on the basis of a power attorney for Selkhoztekhnika at an inter-rayon base, was supplied with conveyers for the removal of farmyard manure and the distribution of feed. This equipment was installed by the farm personnel. However, the PMK workers entered this work to their own credit and exacted approximately 500 rubles from the farm.

In a number of areas, the instructions for accepting products from kolkhozes and sovkhozes are clearly being violated. Processing enterprises -- alcohol plants, starch and flax plants and meat combines -- have the last word with regard to determining the quantity and quality of the products. Many rayzagotkontory /rayon procurement offices/ and alcohol plants in Vitebsk Oblast are employing unjustifiably large discounts in connection with the acceptance of potatoes. In 1984, at the Chashniki Alcohol Plant, such discounts reached 50 percent or more for some kolkhozes and sovkhozes. The fat content of milk declined at the Vitebsk Milk Combine and at the Beshenkovichi Milk Plant. In 1984, at the Senno Dry Skim Milk Plant, 11 of the rayon's kolkhozes and sovkhozes released 12.5 tons of dry skimmed milk at 945 rubles per ton instead of 408 rubles and thus they illegally removed 6,700 rubles from the farms.

A natural question: why is it that Selkhoztekhnika and other service enterprises and organizations, which were created for the purpose of improving the production activities of agriculture, concern themselves with such improper conduct? We are of the opinion that this is explained by the fact that the partners are mainly concerned with obtaining their planned profits at any cost. And the amount of profit is established, similar to the amount of payments into the budget and the withholdings for the economic incentive fund, by the union, republic and oblast associations, that is, by higher authorities. Hence, in order to fulfill their plans, the partners often "obtain" profit at the expense of the interests of the kolkhozes and sovkhozes, resorting to a type of commercial resourcefulness: to do less and obtain more and to sell to those who pay more. For example, a kolkhoz is supplied with deficit spare parts and money is turned over for services for which there was no thought of rendering.

Nor have obvious conflicts in the financial-economic relationships between agricultural production and the processing branches been eliminated. For example, kolkhozes and sovkhozes engaged in the cultivation of sugar beets for technical purposes strive to obtain and deliver roots having a high sugar content, while on the other hand the processing enterprises attempt to lower this indicator in order to compensate for subsequent losses during the storage of the raw materials. Thus it often happens that the party and soviet organs of arbitration and the courts receive requests from kolkhozes and sovkhozes to examine conflicting situations. And all of them derive from the fact that the considerable changes in productive forces throughout the entire agroindustrial complex were not accompanied by the necessary changes in production relationships. The priority in mutual relationships belonged earlier and still belongs today to those organizations which provide services for agriculture and to the processing enterprises. In this interaction, the kolkhozes and sovkhozes are for all practical purposes deprived of the opportunity of exerting an active influence upon their partners, improving the structure of the means of production being made available or raising their quality or improving the system for the acceptance and evaluation of their products sold to the processing enterprises. Thus the losses and shortfalls in output during the transporting, storing and processing stages are still tremendous, that is, at the junction points between agricultural production and subsequent stages along the path leading to the final product of a marketable type.

Existing practice in departmental administration and planning has led to a well-known economic isolation of those branches included in the agroindustrial complex. Highly specialized administrative labor has appeared and this has led to a breakdown in the functions of farm management and to well-known losses in control over a single process -- the production of food products and raw materials for industry. As a result, the departmental goals and interests began to prevail over the final goals and national economic interests, both in the area of efficient use of capital investments and in an economic evaluation of the operational results of each branch. This was reflected throughout the entire system of production, financial and economic relationships between numerous elements of the agroindustrial complex and it led to their incorrect orientation towards mandatory protection for highly specialized interests.

For example, during the creation of Goskomselkhoztekhnika and Soyuzselkhozkhimiya, the goal was assigned of carrying out the work and providing better and cheaper services to the kolkhozes and sovkhozes. Actually, by no means is this goal always t ing achieved. Thus the expenditures for mineral fertilizer applications by rayselkhozkhimiya are often 1.5-2 times higher per hectare than if the same work was performed by the farms themselves. A similar situation is

often being encountered in other branches of the agricultural service. Recently, Goskomselkhoztekhnika has displayed a greater desire to undertake almost all types of repair work, despite the fact that it would seem to be desirable to utilize at full capability the workshops of the farms themselves, after first supplying them with the needed equipment, spare parts and other materials. Is it correct to deprive the kolkhozes and sovkhozes of the opportunities for carrying out such production functions as the repair and technical servicing of machines and equipment, applying mineral fertilizers and carrying out current work in the area of electrification if they are capable of carrying out this work themselves? The unjustified removal of these and other production functions from the farms will produce not only adverse economic consequences, but in addition it will accelerate the migration from the rural areas of the more skilled and young portion of the population and this in turn will cause great social harm.

While causing harm to the financial status of the kolkhozes and sovkhozes, the service organizations are at the same time coping with their own tasks and they are making considerable contributions to the budget, thus clearly justifying their existence from an economic standpoint. In the final analysis however, these amounts are being returned to the farms through the writing off of credits and obligations and by raising the purchase prices... As a result, an increase is taking place in the void between the increasing purchase prices and the stable retail prices for the principal food products and artificial disproportions are being created in the economy.

Thus an analysis of the trends and regularities in the development of the republic's rayon APK's and also an evaluation of the experiments conducted in our country in connection with the creation of a single control system in the Georgian and Estonian SSR's are making it possible to draw the conclusion that the qualitative improvement carried out since 1982 in the system of inter-branch control, by improving the organizational and economic mechanism of the APK, has not produced the desired results.

Thus the correct method for solving the problem is obvious -- the integration of agriculture with other branches which appear as partners in the production, storage, transporting and sale of products produced by kolkhozes and sovkhozes and also with departments called upon to service the technical base of the leading branch. It can be stated that the greater the number of administrative functions transferred over from the ministries and departments to rayon agroindustrial associations, the more rhythmical will be their operation. And such integration must be carried out at the rayon, oblast and republic levels, since the creation of an APK is not an end in itself, but rather a means for additionally obtaining a large quantity of high quality products, lowering the production costs for such output and raising the return from material, labor and financial expenditures.

As noted during the April (1985) Plenum of the CPSU Central Committee, land requires only one master. He must be assigned the function for carrying out planning for all organizations having a relationship with the land and all products produced on it, he must have a single balance and limits for capital investments and logistical resources and he must be authorized to approve the official norms and exert an influence on all partners without exception. The

agroindustrial complex must be planned, financed and administered as a single entity at all levels.

In order to raise the effectiveness of rayon agroindustrial associations, we are of the opinion that during the initial stage the rayon associations of Selkhoztekhnika and the land reclamation organizations should ideally be made directly subordinate to the RAPO councils. Their departmental affiliation, as already mentioned, is one of the most serious obstacles standing in the path of improvements in the efficiency of agricultural production and establishing correct and mutually advantageous economic relationships with kolkhozes and sovkhozes.

Territorial and branch principles of administration are being realized in the RAPO's. Thus the general use in them of unified standard administrative structures and staffs, as recommended by higher organs, is obviously illegal. A need exists for combining the numerous low capability construction organizations which belong to various departments and creating instead a single one responsible for the construction and capital repair of production and cultural-domestic installations and dwellings and which would carry out all work associated with the issuing of orders for planning, acquiring technological equipment, construction materials and so forth.

A method must be developed and legalized which will make it possible, on a scientific basis, to combine and redistribute capital investments at the RAPO level. In the process, it is deemed advisable for the plan-limits for capital investments to be made available to the associations with no break-down by departmental channels. Their councils must themselves distribute the resources among the farms and enterprises of the agroindustrial complex. Importance is also attached to the consistent creation of a single economic mechanism within the RAPO framework.

In short, there are many barriers along the path of rayon agroindustrial associations. But they can be overcome. This requires bold searching and, if necessary, the acceptance of a justified risk in behalf of raising the efficiency of agricultural production, while relying in the process upon scientific achievements and leading practice.

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AGRO-ECONOMICS AND ORGANIZATION

UNRESOLVED PROBLEMS HINDER UKRAINIAN PRIVATE PLOT DEVELOPMENT

Kiev EKONOMIKA SOVETSKOY UKRAINY in Russian No 7, Jul 85 pp 61-64

Article by V. Tovstopyat, candidate of economic Sciences: "Some Problems Concerned With Development of the Private Plots of the Population"/

Text/ In carrying out the USSR Food Program, an auxiliary and yet substantial role will be played by the LPKh /private economy/ of the population. In the future, a leading role in solving the country's food problem will be played by the production of agricultural products in the public sector -- at kolkhozes, sovkhozes and other state agricultural enterprises. Nevertheless, in satisfying the increasing requirements for high quality food products, especially for the rural population, the proportion of the overall volume of agricultural output produced by the LPKh will be high, with no substantial reduction expected in the immediate future.

During the years of the past and current five-year plans, the private plots in the Ukrainian SSR produced approximately 33 percent of the meat, including more than 44 percent of the pork, 25-28 percent of the milk and dairy products and 40 percent of the eggs. The proportion of state purchases of potatoes from this category of farms amounts to approximately 22 percent and fruit and berries -- in excess of 18 percent.

The additional measures adopted in recent years by the party and government of the USSR for increasing the production of agricultural products on private plots have already begun to produce positive results. On 1 January 1983 and compared to 1981, a reduction was noted in the rate at which the number of livestock on private plots of the population in the Ukrainian SSR was declining. The number of young cattle stock stabilized and even increased somewhat and hogs increased by 20.9 percent, sheep and goats by 16.4 percent.

At the present time, the development of livestock husbandry requires special attention. The production of livestock products on private plots in the Ukraine is being held up by several factors. The chief one is a shortage of feed, especially concentrates. In many instances the private plots are not being supplied, either fully or in a timely manner, by public production with young hogs or poultry (especially meat strains of chickens, ducks, geese and turkeys). In a number of areas, especially in the forest district, the rural population is forced into using livestock and poultry of low productivity strains and hybrids. The level of work organization is still low in connection

with livestock purchases and the counter sales of feed and goods which are in high demand by the procurement organizations of consumer cooperation.

Analysis reveals that the sources for obtaining feed for the LPKh are: grain and other feed obtained in the form of payments for work performed in public production; feed procured from public lands and from LPKh tracts; mixed feed acquired through the consumer cooperation system by way of counter sales for products; roasted grain and groats for livestock feed, purchased in state stores; grain and other feed obtained from the public economy of kolkhozes and sovkhozes in an unearned manner.

Short of conducting a detailed analysis of all feed sources for the LPKh, especially concentrated feeds, it should be noted that the first two sources are the dominant ones in the feed structure and the most desired by society. The last source is encountered most often by workers engaged in providing services for the farms (especially at sovkhozes), since here almost no grain is obtained as payment for labor. Roasted grain and groats are obtained and fed to livestock mainly by rural residents who work at non-agricultural enterprises and institutes in the rural areas and cities. The various categories of the rural population also purchase mixed feed from consumer cooperation in conformity with the amount of meat sold on the market and in the cooperative network and also the amount of milk sold to the state. However, it should be noted that we still lack proper order in accounting for the quantities of products being sold, especially meat on the market, and in the issuing of the appropriate documents authorizing the counter acquisition of mixed feed. This often leads to abuses and hindrances with regard to obtaining the desired amounts of mixed feed. Moreover, 1 kilogram of mixed feed, taking into account the losses in time waiting on lines to obtain it and the expenses for home delivery, cost the LPKh owners more than does I kilogram of roasted grain having outstanding nutritional qualities.

For an accelerated increase in meat production, and especially pork, a requirement exists within the republic for increasing the issuing of grain in the form of wages for each ruble earned and not just to machine operators but to all other categories of kolkhoz and sovkhoz workers as well. In the process, the proportion of grain issued in the form of wages at kolkhozes and sovkhozes, with regard to its overall production volume, should be differentiated depending upon the production specialization of the farm and on the order of from 3 to 20 percent of the gross yield.

The regulation of and an increase in the issuing of grain to sovkhoz workers and kolkhoz members in the form of wages and improvements and a considerable expansion in the mixed feed trade through the consumer cooperation system will bring about a halt to the feeding of roast grain to livestock, promote a reduction in the forage losses of kolkhozes and sovkhozes and, most important, a considerable increase in the republic's meat resources will be achieved.

In the raising and fattening of hogs and poultry, the acquisition of young stock in the spring and early summer continues to remain a problem for the owners of LPKh's /private plots/. At some markets, the price for 1 kilogram of live weight of a young pig has reached 8-10 rubles in recent years and those desiring to acquire meat strains of chicks at a poultry factory in Kiev

Oblast sometimes have to wait on line until late at night. Moreover, as a rule the quality of the chicks sold is limited.

The kolkhozes and sovkhozes are not economically interested in selling young swine stock to the population. This problem is still being resolved on the farms under administrative pressure by higher organs. Those desiring to fatten hogs can be supplied with young pigs first of all by carrying out considerable improvements in the breeding work (including through the use of spring farrowings of one-time sows at kolkhozes and sovkhozes) and also by raising the price for a kilogram of live weight in the young stock. Secondly --by breeding swine brood stock on the private plots of citizens and this will become possible only if the private plots are supplied with the appropriate feed.

The sale of young poultry to the population can be increased if more attention is given to this problem by the higher economic organs and if use is made simultaneously of the levers available for regulating the material interests of the producers.

Intra-farm cooperation between the public sector with kolkhoz members and sovkhoz workers must be intensified. In the process, it will be necessary to improve considerably the contractual relationships between the parties involved. Analysis has shown that at the present time the republic's kolkhozes and sovkhozes, when concluding agreements with the population for the raising and fattening of animals, at best sell at the rate of 1 kilogram of weight increase per kilogram of concentrates and rarely -- 1.5-2 kilograms of concentrates and partially -- coarse feed and they raise no objection against the grazing of animals on public lands. The feed supply for these animals is not always guaranteed, not even at the level of 30-40 percent. Such inadequate support in the form of feed for animals being raised on LPKh's, by agreement with a public farm, is delaying considerably growth in the production of meat. Differentiated norms should be established for ensuring that feed is made available for animals being raised and fattened, while taking into account the natural-climatic and local conditions. The norms for the sale to the population of concentrated, coarse, succulent and other types of feed, at the rate for a kilogram of weight increase in young animals raised on the basis of an agreement, as recommended by scientific institutes, must be observed in a very firm manner.

Since feed, especially concentrated feed, is used in an efficient manner on private plots, the expenditure of such feed per unit of weight increase, as revealed by experience, is lower here than the average for the republic's kolkhozes and sovkhozes by twofold. Thus the transfer of a considerable portion of the animals over to the private sector for fattening would make it possible, during the next few years and using the same feed, to produce more products. Moreover, it bears mentioning that man-power and livestock facilities are not limiting factors on the LPKh's in a majority of the rayons in the Ukrainian SSR. The work is being held up quite often by the absence of interest in the public economy in concluding agreements and also by a cautious attitude towards such agreements by the members of LPKh's. Additional work concerned with finding those who wish to fatten livestock on a contractual basis and furnishing them with assistance in obtaining animals, raising,

harvesting and transporting feed and, finally, in the timely sale of the finished products are still not being defined in a concrete manner at a considerable number of kolkhozes and sovkhozes and such work is not being stimulated either materially or morally.

A requirement obviously exists at each kolkhoz and sovkhoz for introducing into the administrative personnel structure the position of deputy farm leader for LPKh's, with a clear definition being provided of the range of his rights and obligations. The structure of the village and settlement soviets also requires such a position. The people occupying these positions, based upon the interests of the state and public production, could serve as a connecting element between the LPKh's of citizens and the public production of a kolkhoz or sovkhoz. Information on the requirements of a particular region for certain types of products, the economic conditions for their production and sale and assistance for the private plots by the public economy of a kolkhoz or sovkhoz in the form of transport or production services -- this represents a rough view of those problems confronting those persons and soviets responsible for development of the LPKh's.

The introduction of appropriate positions for LPKh's in village soviets and at kolkhozes and sovkhozes may result in a definite minimum amount of agricultural output (in a cost or quantitative expression), produced on private plots on a contractual basis.

Experience confirms the fact that in the vicinity of cities and large industrial centers of the Ukrainian SSR, where there is more thorough integration with the public production of kolkhozes and sovkhozes, the private plots can produce considerably more berries and vegetables on a contractual basis, especially green crops, early vegetables in plastic hothouses and cucumbers and tomatoes outdoors. We believe that the most promising method is a form of production integration wherein on public lands and in the plastic spring and summer hothouses of kolkhozes and sovkhozes, all of the population desiring to do so, including those who are not working permanently at the kolkhozes or sovkhozes, can grow a particular crop on the tract assigned to them and sell their products to a kolkhoz or sovkhoz at prices agreed upon earlier. Here the cost of the fertilizer, the expenditures for protecting plants against pests and diseases and for packaging materials and the amortization of the hothouses, similar to the maintenance of specialists and other expenses, must be paid for by the population engaged in producing the products and in accordance with their full cost to the farm. For strengthening such integration, especially the initial organization of production, a portion of the output (up to 50 percent) can be sold to a producer at one's discretion, including sale at a nearby kolkhoz market.

One of the most important production problems for LPKh's in the rural areas is the furnishing of various types of services: plowing of gardens, hauling farmyard manure, transporting hay, harvesting and transporting of crops and so forth. The use for these purposes of powerful tractors and other agricultural machines obtained from a public farm is extremely inefficient and can even bring about losses: in the tilling of gardens, tractors and mechanisms as a rule are operated only in one direction. Nor are they utilized fully when delivering crops from a tract. The working time of a machine operator is not

used in an efficient manner on LPKh's, here there are also over-expenditures of petroleum products and there is a greater amount of wear and tear of equipment. As a rule, the more skilled machine operators are assigned to work on the LPKh's and, as a result, highly productive workers are being removed from public production for a certain period of time and particularly during tense periods of agricultural work (spring sowing and grain harvesting periods).

Ideally, horses should be used for work carried out on LPKh's. Thus, in addition to maximum incentives for the breeding of draught horses in the public economy, the management of kolkhozes and sovkhozes, following appropriate preparations (concluding of agreements and so forth) should be authorized to permit the maintenance of horses on the private plots of workers, kolkhoz members, pensioners and labor veterans who are performing conscientious work in public production. This is particularly needed in view of the fact that this problem has already been resolved in a positive manner in the RSFSR and the Baltic republics. Certainly, industry must supply the rural areas with the required quantities of horse-drawn plows, harrows and cultivators.

We consider as unjustified the creation, especially for the LPKh's, of lowpowered tractors, sets of agricultural machines for use with them and the related construction of appropriate plants. The production of equipment for the tilling of gardens is producing a number of problems associated with ensuring skilled servicing and repairs for such equipment as well as spare parts and petroleum products. Moreover, the operation and use of this equipment can be carried out only by young well trained personnel and by no means pensioners who constitute the main portion of the rural population. All of this tends to complicate the solving of the main problem -- the provision of services for the private economy in the cultivation and harvesting of crops and in the production of livestock products. In a number of areas throughout the republic possessing especially favorable climatic conditions, the private economy has been converted over from an auxiliary production effort into a highly marketable one for the production of vegetables, potatoes and berries and one which is providing rather high and stable profits for its owners. The skilful use of land and water, good knowledge of the agricultural practices and market conditions are making it possible for these citizens to obtain rather high profits from the land tracts made available for their use. Various private ownership tendencies and negative habits are being manifested here and a number of social and economic problems are arising which require organizationaleconomic regulation and additional control by the soviets of people's deputies and the public sector of production. However, the chief aim here is not to employ methods which hamper production, but rather to ensure the skilful development of production and the use of all products obtained.

Collective horticulture and gardening are progressing on a large scale. However, it should be borne in mind that this development is not always producing the desired economic effect and, at the same time, it constitutes in the well known sense a squandering of financial, labor and land resources. Considerable monetary funds, the labor of citizens and materials are being expended for the recultivation of land and the organization of orchard and gardening tracts on unsuitable lands. Roads are being built leading to the tracts, electric power lines are being installed, food stores are under construction and first aid medical points are required here. This is inefficient and especially in those

areas where there are not fully settled villages and towns in the vicinity of cities. In this regard, it is considered advisable to allocate land to citizens for the organization of orchard and gardening tracts within the borders of or alongside an existing rural populated point. Moreover, the size of the tracts should be increased, if the owner so desires, to 0.10-0.15 hectares (upon the condition that the land will be used in an efficient and highly effective manner) and a house with all conveniences should be built on it in which it will be possible to live not only during the summer vacation period but also permanently, for example, after the owner of the tract has been pensioned off or if there is a desire to take up permanent residence, after turning over one's city accommodations to the children or grandchildren. The funds and materials which are being expended at the present time for the construction of roads and other lines of communication for summer house tracts of land could be used for these same purposes in existing villages. Standard stores, doctor's assistant-midwife points could be built here, public services and amenities provided and so forth.

The problems concerned with developing the production of agricultural products on private plots are very varied and diverse. In this article we have touched upon only some of them, the solutions for which, in our opinion, lie on the surface and can have an effect in the future on solving one of the chief tasks of our party, directed as pointed out during the December (1983) Plenum of the CPSU Central Committee at raising the standard of living of the people.

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UDC 631.16:338.5

PURCHASE PRICES, PROFITABILITY IN AGRICULTURAL ENTERPRISES

Moscow EKONOMIKA SELSKOGO KHOZYAYSTVA in Russian No 7, Jul 85 pp 34-38

[Article by A. Okhapkin, doctor of economic sciences and director of VNIETUSKh, and M. Ratgauz, doctor of economic sciences, VNIETUSKh: "Refinement of the Price Mechanism of Agriculture"]

[Text] The economic mutual relations linked with distribution of net income of the sector largely determine the level of functioning of the economic mechanism. Therefore, when working out ways to further develop this mechanism it is especially important to define the main directions of action to refine state purchase prices and the rent mechanism, particularly where a unified position on these issues has not yet emerged among agricultural economists and practioneers. In this connection it is interesting to analyze data that characterize the impact of the measures adopted by the May 1982 Plenum of the CPSU Central Committee on agricultural economics: the increase in purchase prices; institution of a supplement to them for low-profitability and unprofitable kolkhozes and sovkhozes; and writing off and extending overdue credit indebtedness. The results of an analysis of the effectiveness of these measures can provide the foundation for substantiating appropriate proposals.

Such an analysis was done in 1983 on the basis of processing data for 1,670 farms in Leningrad, Kaluga, Tambov, and Amur oblasts and Stavropol Kray. In addition a monographic investigation of particular rayons was made, and questionnaire surveys were taken of directors and specialists in Volgograd and Voronezh oblasts.

The impact of the measures adopted by the May 1982 Plenum of the CPSU Central Committee to strengthen the kolkhoz and sovkhoz economy is not uniform.

Therefore, two lines of action were singled out in the analysis: strengthening the financial position of the enterprises and broadening their ability to develop their own material-technical base; and, creating stable economic conditions for work on cost accounting principles and raising the material interest of labor collectives in improving final results. The basic conclusions drawn from the results of the analysis are also made applicable to these two lines of developments.

The financial position of agricultural enterprises has been substantially strengthened as a result of the measures adopted, and the number of unprofitable farms has decreased. But the problem of insursing stable kolkhoz and

sovkhoz finances has not been completely resolved yet. Even in 1983, which had relatively good weather conditions, 16 percent of all kolkhozes and 13.6 percent of the sovkhozes of the RSFSR Ministry of Agriculture lost money.

The figures on change in indebtedness for bank loans can serve as an indicator of a certain normalization of farm financial position. Overdue credit indebtedness was practically eliminated in 1983 for the sites analyzed (except for Amur Oblast). The figure for extended loans also decreased.

Many factors cause agricultural enterprises to have low profitability or lose money, and among them are factors that depend on the collectives of the farm and agricultural organs themselves. Economic work is poorly organized at many kolkhozes and sovkhozes and they are moving slowly to incorporate cost accounting and the collective contract. At the same time, there are objective factors linked to imperfection of the economic mechanism of the sector, among them state purchase prices and supplements to them. One of these factors is the practice that has become established of determining prices and supplements for the planned volume of state purchases. As a result, the capital appropriated to strengthen the agricultural economy is not incorporated. For example, for the republic as a whole in 1983, just 6.3 billion rubles were incorporated of the 7 billion appropriated for payment of supplements to low-profitability and unprofitable farms. Underuse of this capital is especially significant in the regions which suffered from unfavorable weather conditions. Thus, the supplements were 76.8 percent incorporated in Amur Oblast, and only 32 percent for crop farming output.

To mitigate these negative consequences and stabilize the amount of supplements received, most oblasts, krays, and ASSR's pay them mainly for animal husbandry output. And this lowers the incentive for farms to sell crop farming output.

The practice adopted for determining supplements has a particularly negative effect on economically weak farms. The figures for Kaluga Oblast are typical in this respect: the average level of incorporation of supplements was 76.8 percent, while for the first three groups of farms (that is, those with relatively high profitability) this indicator was 127.7 percent and for the fourth, fifth, and sixth groups the average was 80.4 percent.

Economically weak farms do not always meet their plans for sale of output, even in good years; but this is especially true when the corresponding assignments are given without proper substantiation. As a result, the convergence of levels of profitability for the particular groups of farms that receive supplements is going slowly and deviates significantly from the calcualted parameters. In Stavropol Kray, for example, the gap in level of actual profitability between the extreme groups of farms was 18.2 percent, while in Kaluga Oblast it was 14.5 and in Tambov Oblast it was 11.6 percent. At the same time, the same norm of profitability was envisioned for the groups of farms when distributing amounts of supplements in these regions.

Supplements for low-profitability and unprofitable farms were instituted in place of various kinds of subsidies which were paid, in violation of cost accounting principles, to cover losses, replenish shortages of farms' own working capital,

write off loan indebtedness, and so on. Therefore, the creation of an artificial savings of capital appropriated for payment of supplements is completely unjustified.

Despite the measures adopted to bring the levels of profitability closer using state purchase prices for specific types of output and regions, work in this direction cannot be considered completed. There are still significant gaps between the normative profitability level and the base level for state purchase prices, both for agricultural production as a whole and for particular types of output and regions. These differences cannot be eliminated by price supplements alone, even if shortcomings in methods of determining and paying them are eliminated. All farms do not receive supplements. There are numerous farms that do not have an adequate level of profitability. To insure that they have stable conditions for cost accounting activity steps must be taken to further improve the mechanism of state purchase prices and bring them to the normative level.

Fluctuations in the profit-making ability of agricultural enterprises are caused by shortcomings not only in price formation but also in the mechanism of intraregional regulation of profitability. With the institution of supplements, the process of differentiation of purchase prices was halted or curtailed in most regions. With the overall rise in their level a group of farms with surplus profitability is forming. In Leningrad Oblast, for example, this group comprises 34 enterprises or 17.7 percent of the total. The average profitability level of this group is 56.2 percent. The reason for this situation lies in shortcomings in methods used for distribution of profit and payments to the budget.

The problem of compensation for losses from unfavorable weather conditions is very important under conditions of agricultural production. The existing system of state insurance and reserve financial resources of kolkhozes and sovkhozes does not insure them stable financial conditions of cost accounting activity in years with complex meteorological conditions. 1984 was characteristic in this respect. Many farms which had just begun to strengthen their finances with the help of higher purchase prices and supplements again ended the year with losses and had large amounts of overdue credit indebtedness. It is in just such years that the negative conditions that ultimately lead to lagging production, worker transcience, and the like are reproduced. Therefore, no matter how refined the state purchase prices and supplements may be, there must also be an effective insurance and reserve system that assures full replacement of the income that agricultural enterprises lose as the result of unfavorable weather conditions.

Stabilizing the financial position of economically weak farms has by no means always been accompanied by an increase in the rate of expanded reproduction of capital. Only in Amur Oblast of the five regions studied was the growth rate of financial resources appropriated for savings for low-profitability and unprofitable farms higher than at economically strong farms. In the other oblasts the rate was even lower than in 1982, while in Stavropol Kray it stayed at the earlier level.

Therefore, the financial measures were not always accompanied by a corresponding redistribution of capital investment, ceilings on contract work, and capital for centrally distributed resources in favor of the economically backward farms.

In large part this nullifies the significance of measures to even out the profitability of agricultural production.

The increase in the profitability of agricultural enterprises had a positive effect on the conditions of cost accounting activity. The proportion of budget capital and bank loans in the structure of sources of expanded reproduction for farms receiving supplements decreased slightly; under conditions of the credit situation observed earlier this can be evaluated as a positive step. At the same time, the share of profit is still low (from 0.9 percent in Amur Oblast to 5.6 percent in Stavropol Kray). Overall, budget and credit sources in 1983 accounted for 25.2-54.1 percent of the total monetary capital used for capital investment in the regions studied. Only the first steps were taken in the direction of improving the financial structure of expanded reproduction.

Certain positive changes in the structure of distribution of profit have taken place at low-profitability and unprofitable farms. Whereas in 1982 the bulk of profit was used to compensate for losses and repay credit, in 1983 the regions studied (except for Amur Oblast) used 5-16.4 percent of profit for direct financing of expenditures to create fixed and working capital, 19.3-26.4 percent went for economic stimulation funds, and 2.5-27.8 percent was used for deductions to reserve funds.

The positive trends associated with the increase in profitability of agricultural production were more clearly manifested in a convergence in the sizes of economic stimulation funds between farms that do and do not recevie supplements. For example, the gap in sizes of material incentive funds decreased from 3.1 to 1.4 times in Stavropol Kray, from 12 to 2.6 times in Tambov Oblast, from 2.5 to 2 times in Kaluga Oblast, and from 3.3 to 1.4 times in Leningrad Oblast. In Amur Oblast the amounts of deductions to this fund were practically even, although in preceding years the economically weak farms directed half as much capital to them as the profitable farms.

Deductions to the material incentive fund for low-profitability and unprofitable farms were 10 kopecks per ruble actually recorded in Leningrad Oblast, 6.1 kopecks in Stavropol Kray, and 5 kopecks in Tambov, Kaluga, and Amur oblasts.

Methods of distributing the total amount of supplements by groups of farms have an important place in the system of measures to create cost accounting conditions of operation. The amount of loss incurred in preceding years is the criterion for this purpose today. Because the causes of losses are not always taken into account in determining the amount of supplements, it often happens in practice that supplements not only compensate for additional expenditures caused by relatively worse natural-economic conditions, but also caused by poor management.

The questionnaire surveys showed that this practice is drawing criticism from the directors and specialists, who point out that "stimulating" mismanagement discourages production organizers and does not inspire them to manage the farm economically. One cannot disagree with this view. If this practice is not eliminated, price supplements will lose their stimulating role and become a variation of the state subsidy.

The main line of action to improve state purchase prices, as defined by the decisions of directive organs, is insuring the sectorial norm of aggregate profitability with due regard for planned production volumes and sale of agricultural output, the capital-availability index of the farms, the level of labor payment, and other planned expenditures to promote an increase in production efficiency, improvement in the use of fixed and working capital, and reduction of material expenditures.

We made a preliminary calculation of the norm of aggregate profitability for the public sector of agriculture in the republic. This calculation is based on the following principles:

- -- profit for production savings should insure either complete selfrepayment or preservation of budget appropriations and credit sources within limits allowed by the requirements of cost accounting and timely repayment of loans;
- -- the norms consider capital for repayment of loans which are to be paid in 1986-1990. This approach is especially important for strengthening the finances of RSFSR agricultural enterprises that are characterized by high levels of credit. Price formation with due regard for the credit balance makes it possible not to write off indebtedness, but to give each collective the opportunity to "earn" the corresponding capital by selling its output to the state;
- -- the need for savings in feed production is considered in the norms of profitability of animal husbandry output, which insures sounder and more stable financing of the corresponding expenditures;
- -- capital for creation of the reserve fund is envisioned on the basis of actual amount of loss from natural disasters, which makes it possible to form the financial resources necessary for stable operation on a cost accounting basis even in years with unfavorable weather conditions;
- -- profitability norms are determined not only for the public sector as a whole, but also separately for kolkhozes and state enterprises. At kolkhozes they are considerably higher because of their relatively lower capital-availability index and their greater need for their own sources of expanded reproduction. These circumstances must be reflected above all in the substantiation of price supplements.

The main factor that is holding back realization of the decision on coordinating prices with the sectorial profitability norm is linked to the opinion that large additional budget resources are needed to raise state purchase prices. But it is not considered here that the rise in prices is accompanied by the release of budget capital used for writing off unsecured indebtedness on State Bank loans, compensation for losses and shortage of the enterprise's own working capital, and financing capital investment.

With an increase in profit there will also be a decline in farms' need for credit resources, repayment of loans will be stepped up, the need to extend them will disappear, and as a result there will be a positive change in the balance of mutual accounts between the budget and the State Bank.

Moreover, raising state purchase prices to the normative level means a certain increase in budget income through growth in the payments of agricultural enterprises from net income or profit.

In reality, therefore, capital will be expanded undertwo sub-headings: an increase in economic stimulation funds, and growth in labor payment at economically weak kolkhozes.

The size of economic stimulation funds is strictly regulated by the magnitude of the deduction norm. The deductions can be modified to keep the size of the funds within the limits envisioned by the national economic plan.

The labor payment that has taken shape at economically weak farms in many cases still lags behind the level of state agricultural enterprises. Therefore, bringing their level of payment up to the sovkhoz level (where labor productivity is comparable) is a natural phenomenon that is reinforced in the corresponding resolutions of directive organs.

As the analysis showed, labor payment did rise somewhat in 1983 at the kolkhozes that receive supplements. The additional expenditure of capital for labor payment varied by regions from 5.2 to 6.3 percent of the total amount of supplements to purchase prices received. Growth in labor payment for this reason is not expected with a further refinement of purchase prices because the supplements now introduced permit all economically lagging kolkhozes to raise labor payment to the soykhoz level.

Therefore, steps to relate state purchase prices to normative profitability with appropriate state regulation will not be linked to expenditures not envisioned by national economic plans. At the same time, a significant impact can be expected from the introduction of effective cost accounting, increasing the interest of labor collectives in work on a self-repayment basis, and improving final results.

Regardless of the decision on the general level of profitability of purchase prices, the question of bringing them closer to a normative basis remains timely. Profitability norms are based on a model of the price of socialist reproduction, that is, on the ratio of profit to capital-intensiveness of output, and in the part concerned with the need to establish economic stimulation funds -- the ratio of profit to wage-intensiveness. At the present time, however, purchase prices are oriented to a model of averaged cost -- the ratio of profit to prime cost. Therefore, even when the profitability level of the sector as a whole is adequate the need of particular regions and subsectors for profit is not satisfied because of significant fluctuations in the rate of production development, differing capital-intensiveness, and so on. All of these questions can be resolved with transition to the model of the price of socialist reproduction envisioned by profitability norms. This measure is becoming more significant in current conditions, when major changes in the territorial disposition of agricultural production are anticipated. Prices should insure the necessary economic conditions to realize this process.

To substantiate the prospects for increasing the effectiveness of supplements, their place in the overall system of economic stimuli for agricultural production should be more precisely defined. The supplements are a modification of differentiated (within the oblast, kray, or ASSR) state purchase prices that reimburse farms located in relatively worse natural-economic conditions for socially necessary expenditures.

The methodology for determining and paying the supplements should also be put on a normative price basis. The first thing needed here is to reject the practice of determining them by the amount of losses actually incurred. The supplements should be determined applicable to the objective natural-economic conditions of particular farms and corresponding groups set up by this criterion. In this case the amount of supplements could be established by a point calculation of a comprehensive evaluation of natural-economic factors. It is also possible to use normative prime cost and profitability of output by particular natural-economic zones.

It is important that the decision on distribution of farms by groups and amount of supplements be made collectively, and publicly. Each enterprise manager should be convinced that the supplement is not incentive for mismanagement, but compensation for objectively worse natural-economic conditions.

The conclusions formed concerning the role of supplements to state purchase prices make it possible to take a more objective approach to determining their total amount. It should correspond to the normative need of the oblast, kray, or ASSR for capital to reimburse for additional expenditures for the production of output envisioned by the plan in relatively worse conditions. The difference between this need and the supplement ceiling established for the region should be regulated by the total amount of state purchase prices. It is advisable to give the right to make this redistribution to local organs. They should also decide the question of choosing the base for determining the amount of supplements -- the planned or actual volume of purchases of output; and this decision should not involve the supplement ceiling set for the region.

As the proposals above are realized the prerequisites will be created for a better substantiated decision or the question of the list of products for which supplements are paid. Several variants are possible: an equal addition to earnings for all types of output sold to the state; differentiated amounts of supplements that insure the same profitability for all types of output; differentiated supplements that stimulate sale of the output that is the specialty of the particular farm. Each variant has its strong and weak points. They can be finally evaluated after a trial in practice.

The favorable preconditions established by the resolutions of the May 1982 and subsequent Plenums of the CPSU Central Committee should be used fully in comprehensive refinement of the economic mechanism. Without going into detailed substantiation, we will list the main lines of action to realize them:

-- introduction of an income regulation mechanism in the form of a scale of payments to the budget or to the sectorial (regional) fund for regulation of profitability depending on a comprehensive assessment of natural-economic factors;

- -- state regulation of the labor payment fund of all agricultural enterprises, including kolkhozes, on one of the following variants: the normative method of planning and monitoring the wages fund; assignment based on the ratio of the growth rates of labor productivity and labor payment and blocking the corresponding capital where this assignment is violated; formation of the labor payment fund depending on gross income created; a progressive income tax on labor payment;
- -- refinement of state insurance to secure full compensation for income lost because of unfavorable weather conditions;
- -- the normative method of planning the production and state purchases of agricultural output, its prime cost, and profitability.

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SHORTCOMINGS REVEALED IN AGRICULTURAL EQUIPMENT

PMO61139 Moscow SELSKAYA ZHIZN in Russian 28 Aug 85 p 1

[Yu. Grachev report: "Efficient Technical Supplies for the Countryside. From a Session of the All-Union Operational Staff"]

[Text] A time of particularly strenuous work has arrived in the life of farmers. The harvesting of grain crops has shifted to the east, and next in line is the gathering of corn, potatoes, surflowers, beets, cotton...The utmost effort is required of all partners in the agroindustrial complex and, above all, of those who supply kolkhozes and sovkhozes with equipment, spare parts, fuel, and mineral fertilizers. Precisely this was discussed at a regular session of the All-Union Operational Staff for Material and Technical Supplies in Agriculture, which was opened by L. I. Khitrun, chairman of the USSR State Committee for the Supply of Production Equipment for Agriculture.

He pointed out, in particular, that despite the fulfillment of plan targets of a whole, individual industrial enterprises are coping badly with the fulfillment of orders for the countryside. Kherson Combine Plant, for example, undersupplied farms in southern oblasts to the tune of 700 harvesting machines, thereby putting them in a difficult position, and the corn harvest has already begun there.

Untimely deliveries of trucks and trailers for them are also complicating the course of things. Meanwhile, despite the assurances given at the previous session that the situation will be rectified, a number of enterprises also are in no hurry to dispatch equipment to the countryside. They include Kutaisi Motor Vehicle Plant, Krasnoyarsk Truck Trailer Plant, and Balashov Truck and Tractor Trailer Plant.

However, the session participants addressed most complaints to the USSR Ministry of Tractor and Agricultural Machine Building and also the USSR Ministry of the Automotive Industry because of the chronic lag in deliveries of spare parts. The Odessapochvomash Production Association, the Kharkov Tractor Engine Plant, the Altay Tractor Plant, the Michurinsk Motor Unit Plant, the Kostroma Motordetal Plant, the Yaroslavl Avtodizel Production Association, the Sinelniko Spring Plant, and other enterprises once again featured on the lists of laggards.

It is hardly worth listing the names of the hundreds of thousands of components which these collectives owe the countryside. Bewilderment and surprise are aroused by the fact that all this is of little concern to the leaders both of the plants themselves and of the departments to which they are subordinate. The same can also be said of individual enterprises of the Ministries of the Petroleum Refining and Petrochemical Industry, Ferrous Metallurgy, and Machine Building for Animal Husbandry and Fodder Production.

The following facts were cited at the session. The Azrezinotekhnika Production Association and the Karaganda, Leningrad, and Sverdlovsk industrial rubber products plants owe agriculture a considerable number of V-belts. The question of these collectives' failure to meet targets has been discussed repeatedly at sessions of the operational staff. Various measures have been taken, numerous instructions written, and written and verbal directions and reminders given. However, as can be seen, the practical resolution of the problem has been buried in a heap of papers.

Or another example. By decision of the operational staff on 22 June the leaders of the USSR Ministry of Ferrous Metallurgy were entrusted with taking measures to eliminate the lag in deliveries of rolled metal to the countryside. How are things today? The situation has not improved at all.

Or take such a disagreeable question as the supply of equipment to the countryside for livestock raising and feed production. This time, too, it was an urgent item on the agenda.

However, the collectives of enterprises producing the said equipment are in no great hurry to fulfill important orders for the countryside. It has become usual to see on this list, for example, the Lyubertsy Zavod Imeni Ukhtomskogo Production Association, and certain other enterprises of the USSR Ministry of Machine Building for Animal Husbandry and Fodder Production. I believe that the leaders of this department have not yet made sufficient effort to ensure the uninterrupted and smooth supply of the necessary equipment to kolkhozes and sovkhozes.

Other questions of improving material and technical supplies for agriculture were also examined at the session.

Senior officials of the CPSU Central Committee, the USSR Council of Ministers, the USSR People's Control Committee, and the USSR Gosnab and representatives of ministries and departments participated in the work of the staff.

LACK OF TRACTOR ATTACHMENTS DELAYING AGROTECHNICAL PROGRESS

LD131717 Moscow Domestic Service in Russian 1100 GMT 13 Sep 85

[Text] The big K-700 tractors are not working to full capacity. This conclusion was reached at a session of the collegium of the USSR Committee for the Supply and Sale of Equipment for Agriculture. It was noted that industry is increasing the output of machines for kolkhozes and sovkhozes. The power-labor ratio in agriculture grows every year and is now 30.7 horsepower per head. Power capacity is being increased not only by increasing the output of tractors, but also by increasing their engine power. In the structure of the tractor stock, the proportion of the engines of the K-700-type machines has reached one-third. However, the creation of machines and tools for use with the Kirovets and other powerful tractors -- the attachment range for them -is not yet finished. Of 144 types of machines needed to complete this range, only 73 are in series production, that is only half. Many machines have been tested and recommended for productions, but series production of them has not been set up. Other machines for use with the Kirovets have not yet been built or are in the process of being tested. In particular, there is an acute need for combined units, sowing machines, cultivators, snowplows, and other wide-swath machines to replace the inefficient ones currently in use. The collegium noted that the lack of machines for use with tractors of the K-700 type is seriously delaying the introduction of intensive technology for cultivating agricultural crops. One of the main suppliers of such equipment is the Ministry of Tractor and Agricultural Machine Building. The enterprises of this ministry are increasing their output of machines for the K-700. However, the production of equipment for the accelerated introduction of intensive technology is behind schedule. The main production of it is not planned until the end of the next 5-Year Plan. need for such units to carry out a range aimed of soil-protective agrotechnical measures. The collegium laid down specific measures at speeding up production and improving the quality of machines necessary for working with the powerful K-700 tractors.

BRIEFS

LIMITATIONS OF COMBINE HARVESTERS--At Kalinin Kolkhoz, Pervomayskiy Rayon, extra corn was sown in addition to the plan in order to make up for the low yield on the winter fields. Each hectare is yielding 80 quintals per hectare, which enables the farm to fulfill the plan for sales to the state and to deliver the cobs to the interfarm combined feed plant, where they are ground and mixed with alfalfa and cucurbits to yield a ready combined feed. "In order to gather the corn in at the optimum time and without losses, the wide-swathe Kherson-200 combines are used. Unfortunately, however, even they have their weaknesses when faced with such a harvest. Several units often go wrong. The specialists at the Kherson Petrovskiy Works evidently have something to think about here." Corn cultivation has replaced low-yield crops on the farm, with the result that in the current 5-year period the gross production of the farm has increased 1.5 times using the same area sown to fodder. [video shows corn cobs being harvested and tipped from trucks on to heaps; tractor heaping up green fodder.] [From the "Novosti" newscast; V. Plotnikov video report] [Summary] [Moscow Television in Russian 1130 GMT 30 Sep 85]

WATER RESOURCES AND LAND MANAGEMENT

UDC 631+01

MESYATS ON ROLE OF SCIENCE, TECHNOLOGY IN LAND RECLAMATION PROGRAM

Moscow VESTNIK SELSKOKHOZYAYSTVENNOY NAUKI in Russian No 7, Jul 85 pp 3-16

/Article by V.K. Mesyats, USSR minister of agriculture: "Vital Tasks of the Agricultural Science"/

/Text/ The year 1985 was an especially significant and important one for our entire country and for each Soviet individual. It was the year which marked the completion of the 11th Five-Year Plan, the celebration of the victory achieved during the Great Patriotic War and active preparations for the 27th party congress.

The steadfast determination to ensure continuity in politics and to follow Lenin's path in a firm and consistent manner was expressed during the April (1985) Plenum of the CPSU Central Committee, which clearly demonstrated the inseparable unity of the party and people and the monolithic solidarity of the party ranks around the Central Committee and its ruling nucleus -- the Politburo of the CPSU Central Committee.

The party's strategic policy has been and continues to be that of accelerating the country's socio-economic development and improving the life of our society. In order to move forward in a confident manner and be able to satisfy in a more complete manner the material and spiritual needs of our Soviet people, we must not only reinforce and multiply that which has already been achieved but in addition we must achieve a decisive turn-about with regard to converting the economy over to an industrial basis and we must raise its effectiveness sharply. Here there is only one path to be followed -- dynamic scientific-technical progress and active improvements in the forms and methods of socialist management.

The problems concerned with intensification of the agroindustrial complex and transforming it into a highly developed sector of the socialist economy were examined from this standpoint, with all of the increasing requirements being taken into account, during the October (1984) Plenum of the CPSU Central Committee.

Based upon dicisions handed down during the Plenum, a comprehensive_discussion took place during a March 1985 annual general meeting of VASKhNIL /All-Union Academy of Agricultural Sciences imeni V.I. Lenin/ academicians and corresponding members on the vital tasks confronting the agrarian scientists and

the directions to be pursued in carrying out scientific studies were outlined, the implementation of which is an organic part of a national endeavor -- implementation of the long-term program for land reclamation, raising the effectiveness of use of reclaimed lands and strengthening the country's food fund on this basis.

It was noted that the implementation of the economic, social and organizational measures called for in the Food Program is producing perceptible results. Even During 1984, considered to be an extremely unfavorable year from the standpoint of weather conditions, the gross volume of agricultural output amounted to approximately 135 billion rubles -- 11 billion rubles higher than the average annual level for the 10th Five-Year Plan. The plans for the sale of vegetables, potatoes, grapes and tea leaves to the state were fulfilled; more sugar beets were sold than was the case in 1983.

The positive changes realized in livestock husbandry were especially gratifying. Compared to 1983, the purchases of livestock and poultry had increed by 700,000 tons, milk -- by 2.8 million tons and eggs -- by 1,276,000,000 units. This had a favorable effect with regard to ensuring that the population was supplied with meat and dairy products.

The economic situation in agriculture is improving in a systematic manner. The total profitability of agricultural production amounted to 16 percent. The kolkhozes and sovkhozes realized 19.5 billion rubles worth of profits and this is creating the economic conditions required for the extensive use of their economic initiative.

Positive changes are taking place in the rural areas and its overall appearance is gradually changing for the better. Noticeable achievements have been realized in solving one of the programmed tasks of the party -- bringing the standard of living of the rural population closer to that of the municipal population. During 4 years of the 11th Five-Year Plan, 132 million square meters of housing space were placed in operation in the rural areas and housing conditions were improved for more than 10 million persons. The volumes of construction work being carried out on schools, kindergartens and nurseries and public health and cultural installations increased. An expansion is taking place in the sphere of domestic services and the material well-being of rural workers is increasing.

The positive changes in the agrarian sector and the solutions for the food problem are beyond question. In recognizing the difficult and selfless work of the farmers and livestock breeders, the tense organizational and political work of the party, soviet and administrative organs in the rural areas and the tremendous contribution being made by workers in all branches of the economy, we must at the same time mention that the status of agriculture in some sectors continues to remain difficult. The production of agricultural products is still not satisfying fully the country's increasing requirements. The principal reasons for this -- serious organizational shortcomings in the use of land, economic potential and logistical resources, the slow introduction on an extensive scale of the achievements of science and leading experience and the decreased degree of exactingness in a number of areas in connection with the observance of planning, state, technological and labor discipline.

Difficulties of an objective nature are being superimposed upon these and other shortcomings. This includes first of all the complicated natural-climatic conditions under which agricultural operations must be carried out. More than 60 percent of the country's arable land and approximately 70 percent of all agricultural land are located in arid regions. A considerable portion of the arable land is found in regions of excessive moisture. Even in zones considered to be more favorable in terms of climate, the weather factors in recent years have had an adverse effect on farming.

We still are unable to change the climate; however we are able to reduce the adverse effects of weather on stable growth and yields. Leading science and practical experience have provided our modern farmers with rather effective means. Here one of the first areas is land reclamation. Thus the October (1984) Plenum of the CPSU Central Committee defined land reclamation as a decisive factor for reducing to a minimum the vulnerability of agricultural production to the caprices of nature and for achieving further improvements in agriculture and a stable increase in the country's food fund.

Over the past 20 years, a tremendous amount of work has been carried out in the area of land reclamation construction. The overall area of irrigated and drained lands increased during this period from 17 to 33 million hectares. The proportion of field crop husbandry products harvested from reclaimed lands reached 34 percent. We are obtaining all of our cotton and rice from such lands, 75 percent of vegetables, approximately 50 percent of the fruit and grapes, almost 40 percent of the grain corn and one fourth of our coarse and succulent feed.

Soviet scientists have made a considerable contribution towards the party's plans for land reclamation operations. The creation of modern and technically more improved irrigation and drainage systems having a relatively high coefficient of use of land and water resources and an increasing level of mechanization of production processes is considered to be one of the more important achievements in the land reclamation science. Based upon these developments, large-scale irrigation systems have been built in the Volga region, the north Caucasus, the southern Ukraine and the republics of Central Asia and regional drainage systems in the forest district of the Ukraine and Belorussia, the Baltic republics, the nonchernozem zone of the RSFSR, in Siberia and in the Far East.

The production of drainage systems having closed drainage and closed irrigation systems is being mastered on an extensive scale. The irrigation systems are making it possible to automate the group operation of modern wide-swath sprinkling equipment. Following the completion of developmental work, the introduction of systems for vertical drainage and subterranean and trickle irrigation and the finely dispersed moistening of crops was organized. The irrigation of cultivated pastures of many year's standing is being carried out on an area of more than 1 million hectares and this will make it possible to raise their productivity. Catchwork irrigation has been mastered on roughly the same area, mainly in Kazakhstan.

Basically new drainage-moistening and drainage-irrigation systems for ensuring two-way optimization of a water regime were proposed and introduced for the very

first time on 1,200,000 hectares for regions having an excess of moisture in our country. Other large-scale studies concerning land reclmation were carried out, studies which are of great national economic importance.

In short, the agricultural science can boast of achievements which testify to the real contributions made by scientists in carrying out the land reclamation tasks of the party and government.

At the same time, there are many shortcomings in the creation of land reclamation systems just as there are in the operation of substantially improved lands. One of the chief such shortcomings -- the low effectiveness of reclaimed lands in a number of areas and the poor return from them in the form of products. This is why some sharp critical comments were made regarding the agricultural organs and scientific institutes during the October (1984) Plenum of the CPSU Central Committee. In many regions and oblasts where there are renovated tracts, practically the same yields are being obtained as from non-irrigated land. One fourth of the farms are still obtaining less than 20 quintals of grain per hectare under irrigation conditions, almost one third of the kolkhozes and sovkhozes are obtaining less than 75 quintals of vegetables per hectare and one out of every 10 farms is satisfied with 20 quintals of perennial grass hay per hectare.

A serious lag has been tolerated in the carrying out of measures aimed at transforming the nonchernozem zone of the RSFSR. Soil improvement work is being carried out at insufficient rates, repairs to the land reclamation network are not being carried out on a timely basis, drained lands are not being supplied with adequate quantities of mineral and organic fertilizers and the liming of acid soils is being carried out in a very weak manner. As a result, the agricultural crop yields in the nonchernozem zone are increasing extremely slowly. In particular, the reclaimed lands in Novgorod, Pskov, Ivanovo, Kostroma, Kalinin and Gorkiy oblasts are being used in a very inefficient manner.

A great amount of irrigation work is being carried out in the republics of Central Asia. However the irrigated land potential created here is not being utilized to full advantage. Almost one fifth of the farms are obtaining less than 20 quintals of cotton per hectare, one fourth of the kolkhozes and sovkhozes are obtaining less than 30 quintals of grain per hectare and one out of every two farms is producing less than 150 quintals of vegetables per hectare.

There are many natural meadows and pastures in the country which are in need of radical or superficial improvements. And although this work is inexpensive and simple to carry out and it serves to raise the productivity of the land by a factor of 1.5-2, nevertheless proper attention is not being given to it in a number of oblasts and republics. By no means is full use being made of the potential available at the aquicultural organizations, enterprises of Selkhoztekhnika and Selkhozkhimiya and at the kolkhozes and sovkhozes.

No justification can be found for the fact that each year approximately l million hectares of irrigated land are dropped from use or are not watered. The modernization of old land reclamation systems is being carried out at unsatisfactory rates.

There are many reasons for these shortcomings -- mismanagement and lack of responsibility on the part of many kolkhoz and sovkhoz leaders and specialists, lack of coordination and departmental isolation of agricultural and aquicultural organs and weak scientific support for the land reclamation programs. The October Plenum of the CPSU Central Committee called for the development and implementation of measures which would make it possible to eliminate these shortcomings more rapidly, raise land reclamation work to a new level from the standpoint of quality and to utilize more fully its potential for increasing the production of agricultural products and for attaching greater stability to farming. This task was pushed into the foreground as being one of special and national importance.

During the brief period of time which has elapsed since the October Plenum of the CPSU Central Committee, the ministries of agriculture, land reclamation and fruit and vegetable industry carried out a definite amount of organizational work directed towards implementing its decisions and they established closer business-like contacts in their daily activities. Joint measures were developed for the purpose of raising the responsibility of the personnel for ensuring highly efficient use of the irrigated and drained tracts of land. The plans call for the implementation in 1985 of programmed yields on 3.3 million hectares of reclaimed land, the assignment of substantially improved fields to permanent brigades and teams which operate on the basis of a collective contract and the training and retraining of land reclamation specialists and farm leaders and specialists.

The contracts established between the farms and their APK /agroindustrial complex/ partners stipulate that the aquicultural organizations and the enterprises of Selkhoztekhnika and Selkhozkhimiya will ensure the maintenance of the land reclamation systems and irrigation pool of machines in correct operating condition, supply the planned equipment in a timely manner in keeping with the optimum schedules, apply mineral fertilizers in the required volumes and employ plant protective agents. The kolkhozes and sovkhozes must obtain the planned yield from each reclaimed hectare of land and they must achieve the planned production volumes for the agricultural products. Mutual material interest and responsibility will play a positive role in increasing the productivity of the irrigated and drained lands. A chief concern at the present time -- to establish control in all areas over the absolute fulfillment of contractual obligations by all partners.

The transfer of the intra-farm land reclamation network of kolkhozes and sovkhozes over to the balance of the aquicultural organizations will be carried out in strict conformity with the decisions handed down during the October Plenum of the CPSU Central Committee. At the same time, the plans call for specific methods for solving the tasks set forth in the long term program for land reclamation.

In conformity with this program, land reclamation work will be continued in all of the union republics during the 12th Five-Year Plan. Throughout the country as a whole, 7 million hectares of newly irrigated and drained land must be placed in operation, improvements must be carried out in the technical condition of existing irrigation systems on an area of 5.5 million hectares and drainage systems on an area of 1 million hectares, soil improvement work must be carried

out on 8.3 million hectares and 15,800 kilometers of main waterlines of an agricultural nature must be built. More than 50 billion rubles worth of capital investments are being allocated for this purpose -- 6 billion more than the amount for this current five-year plan.

The long-term program calls for the area of irrigated land to be increased to 30-32 million hectares by the year 2000 and drained land -- to 19-21 million hectares. In order to carry out these tasks, the plans call for a large-scale territorial redistribution of water resources.

During the 1986-2000 period, construction will be completed on installations for the first stage of the diversion of a portion of the flow of northern rivers and lakes into the Volga Basin. This will make it possible to create new and large tracts of irrigated land in the lower Volga and norther Caucasus regions.

In order to increase the availability of water in the southern Ukraine and in Moldavia, the plans call for the completion of construction work on the hydroelectric power station in the Denprovsko-Bug Estuary and the commencement of construction on the aquicultural complex Danube-Dnepr and the Danube-Nisporeny Canal. During this same period, planning work will be completed for diverting a portion of the flow of Siberian rivers into regions in the Urals and western Siberia, Central Asia and Kazakhstan.

The advance of irrigation in the southern part of the country, where there is a high bioclimatic potential, fine land and sufficient workers is opening up real prospects for making maximum effective use of material, land, water and labor resources. At the same time, land reclamation work will be continued in the nonchernozem zone of the RSFSR, western Siberian and in other regions and this will play a positive role in agricultural development in these farming regions.

The long term program attaches priority importance to solving such key problems as increasing grain and feed production and completing the conversion of vegetable production over to irrigated lands. The carrying out of the planned land reclamation operations will make it possible by 1990 to raise the gross grain yield from improved tracts to 32.3 million tons and by the year 2000 -- to 55-60 million tons, including corn to 18-20 million tons. Approximately 80 million tons of feed must be obtained in 1990 from renovated lands and in the year 2000 -- not less than 115-125 million tons in a conversion for feed units. The plans call for a considerable expansion in the sowing of alfalfa and other pulse crops, which serve to balance the feed in terms of protein. All of this will create a reliable feed base for the development of intensive livestock husbandry operations.

By 1990 the gross yields of vegetables and early potatoes from irrigated and drained lands will reach the volumes required for completely satisfying the population requirements of large cities and industrial centers.

The production of raw cotton will increase as a result of raising the cropping power and expanding the all-round development of large irrigated tracts in Central Asia, Kazakhstan and Azerbaijan.

The carrying out of such grandiose land reclamation measures requires the use of new scientific approaches for the urgent problems at hand and also the active mobilization of the creative potential of VASKhNIL and all scientific institutes of an agricultural profile.

A thorough analysis of the basic trends in studies and results and a comparison of them against the new tasks have shown that adequate purposefulness, an optimum concentration of material and labor resources and proper results in the work of scientific institutes are not being achieved for all of the chief problems of land reclamation. This was very clearly manifested when the party and government increased their requirements considerably with regard to the effectiveness of the studies and their accelerated introduction into production operations.

The central problem, upon which the highly effective use of irrigated and drained land is entirely dependent, is that of improving and introducing scientifically sound farming systems into kolkhoz and sovkhoz production operations in all areas. The departments for farming and the use of chemical processes, hydraulic engineering and land reclamation of VASKhNIL, the zonal scientific-research institutes for agriculture and institutes of a land reclamation profile are responsible for the development of these systems and for providing scientific support during their introduction into operations. Recently, such systems, with special sections for land reclamation farming, have been created for almost all of the country's oblasts. However, the typical characteristics of substantially improved lands are not always taken into account in these systems and this lowers sharply the effectiveness of their use.

Many of the recommended systems do not fully call for a radical change in the structure of the area under crops, a maximum saturation of the crop rotation plans with intensive crops, optimization of the nutritional regime for soils, the use of integrated systems for combating plant pests and diseases and preventing the secondary salinization of land and other unfavorable consequences of land reclamation. As a result and despite the fact that in the various areas, in conformity with the farming systems that were developed, measures were undertaken aimed at improving the structure of the sowing fields, which brought about somewhat of an increase in the areas used for corn, alfalfa and other intensive crops, a decisive change was not realized on the whole with regard to optimizing the structure of the areas under crops, both on irrigated as well as on drained lands. Of 19 million hectares of irrigated tracts, only approximately 1 million hectares or 6 percent were occupied by corn and in the case of perennial grasses -- only 4.2 million hectares or 27 percent. Approximately 1 million irrigated hectares are annually sown in low productivity annual grasses. On drained tracts, the area for perennial grasses is less than 30 percent. Even in the corn belt region -- the southern Ukraine, north Caucasus and the Volga region -- by no means have all of the opportunities for expanding the sowings of grain corn under irrigation conditions been exhausted.

Serious deficiencies in the development and introduction of farming systems on renovated tracts have been uncovered in zones where land reclamation construction work is being carried out on a large scale and particularly in the Volga region. Here there is only a weak validation for a rational combination of the water and nutritional regimes for the soil, the norms for applying

mineral fertilizer have been lowered and an effective system for the integrated protection of sowings against pests and diseases has not yet been created.

The Volga region is subject to almost constant severe droughts, which cause considerable harm to the farm economies. Thus an exceptionally acute problem here is that of increasing the production of grain and feed on irrigated areas. However, imperfections in the farming systems that have been developed and economic miscalculations in the use of reclaimed tracts of land are restraining growth in their productivity. As a result, the average grain crop yield under irrigation conditions does not exceed 19-20 quintals per hectare and perennial grass hay -- 40-45 quintals per hectare and these figures are not in keeping with the potential of the Volga land.

These shortcomings are primarily the responsibility of the agricultural organs and farm leaders and specialists, many of whom have not organized their own work; they are still introducing only slowly the achievements of science and leading practice into production operations and they are not mobilizing the personnel in the interest of achieving intensive use of the reclaimed lands.

At the same time, we are quite justified in issuing complaints against the collectives of the All-Russian Scientific-Research Institute for Irrigation Farming, the All-Union Scientific-Research Institute for Irrigated Vegetable and Melon Production and the Volga Scientific-Research Institute of Hydraulic Engineering and Land Reclamation, which are responsible for providing scientific support for land reclamation construction in the Volga zone. In the works of these institutes, despite the fact that there are recommendations for crop rotation plans and the structure of the areas under crops fertilization systems, reclamation of solonetz soils and the production technology for grain corn and alfalfa on irrigated lands, nevertheless they are not implementing their recommendations in production operations in a sufficiently active manner and they are exercising only a weak influence with regard to raising the effectiveness of irrigation on the farms. In their scientific studies, these institutes are not fully covering all problems concerned with the creation of optimum farming systems and methods for controlling the soil-forming process during irrigation.

A special problem -- farming systems for farms in the nonchernozem zone, where use is made of one third of all capital investments employed in land reclamation construction throughout the country. The return from investments in this zone is still extremely low.

The farming systems for oblasts in the nonchernozem zone of the RSFSR, Belorussia and the forest district of the Ukraine call for many fine measures aimed at multiplying the productivity of reclaimed lands. However, many of them fail to take into account properly the methods for two-way control over moisture conditions, especially in the case of broken relief, a reduction in the adverse consequences of soil packing, the methods for improving the filtration properties of heavy loam soils, the reclamation of peat and sandy loam soils, their efficient development for agricultural crops and the requirements for environmental protection.

The All-Russian Scientific-Research Institute for the Agricultural Use of Reclaimed Lands is primarily responsible for the weak development of these most

important problems. This institute has already been in existence for 8 years and yet the voices of its scientists have for all practical purposes not been heard and they are not exerting any influence with regard to raising the return from the land even in Kalinin Oblast, where this institute is located. We must also impose high requirements upon the Belorussian Scientific-Research Institute of Land Reclamation and Water Management, the Northern Institute for Hydraulic Engineering and Land Reclamation, the Scientific-Research Institute of Agriculture for the Central Regions of the Nonchernozem Zone and on the whole upon the VASKhNIL branch for the nonchernozem zone of the RSFSR.

The effectiveness to be realized from the introduction of farming systems on drained lands decreases owing to insufficient rates for the liming of acid soils and extremely low dosages and low quality of application for organic fertilizers. A progressive and stable reduction in the acidity of soils and a positive balance in the accumulation of organic substance in such soils is ensured in the Baltic and in Belorustia, where the production and use of organic fertilizers and lime materials are well organized. In addition to other measures, this aided the kolkhozes and sovkhozes in these regions in raising the average grain crop yield to 28-30 quintals per hectare and that for perennial grass hay -- to 40-50 quintals per hectare.

On the whole, the grain yields from drained lands on farms in the nonchernozem zone remain at the level for the 1975 indicators. The reason -- serious problems in the production of lime materials and in the accumulation and use of organic fertilizers.

In the farming systems for the Central Asian republics, positive results are being noted as well as substantial shortcomings. These shortcomings are in connection with the development and introduction of crop rotation plans, the structure of the areas under crops, the irrigation regimes and the mastering of new lands. All of this led to the development of secondary salinization over large areas, water-logging of soils and to a deterioration in their water and air regime and this adversely affected growth in the cropping power and gross yields of cotton, especially in the Uzbek SSR. The All-Union Scientific-Research Institute of Cotton Production, which was assigned responsibility for ensuring scientific-technical progress in this branch, did not undertake timely measures aimed at eliminating the shortcomings and only now, when they are especially manifest, is it introducing certain recommendations. The party, soviet and agricultural organs of the central Asian republics are presently undertaking measures aimed at restoring the cotton-alfalfa crop rotation plans, improving the structure of the sowing fields and raising the technical level of the reclamation systems.

An urgent task of the Central Asian Branch of VASKhNIL, the All-Union Scientific-Research Institute of Cotton Production, the Central Asian Institute of Irrigation and the zonal scientific institutes jointly with the agricultural workers -- to introduce corrections into the farming systems more rapidly and also into production operations and on this basis to achieve further improvements in cotton production, feed production and in other branches of agriculture.

The farming systems developed and mastered in the rice growing krays and republics turned out to be imperfect. A high saturation of the crop rotation

plans with rice and the conversion over for all practical purposes to a single-crop system brought about a strong contamination of the fields, their secondary salinization and water-logging and the spread of plant diseases and this adversely affected the growth in cropping power and gross yields for this valuable crop. At one time the All-Union Scientific-Research Institute of Rice did not display proper persistence in carrying out its own developments, which excluded such negative consequences. This resulted in considerable losses for the state. In order to correct the situation with rice production, especially in Krasnodar Kray, considerable resources must be invested.

The attention of all leaders of scientific-research institutes, regional branches and the VASKhNIL Prosidium must be concentrated on rapidly eliminating the existing shortcomings. This must be done immediately, at the present time, since all-round programs aimed at raising the effectiveness of studies, the practical application of their results in production and the establishment of closer contacts with the kolkhozes and sovkhozes are being developed at all of the agricultural and land reclamation scientific institutes based upon the decisions handed down during the October (1984) Plenum of the CPSU Central Committee. At the same time, the scientific workers, jointly with the agricultural organs, must undertake efficient measures directed towards the active introduction of farming systems into production operations.

More emphasis should be placed upon relying on leading experience, of which we have a considerable amount. The collective of the Ukrainian Scientific-Research Institute of Irrigation Farming has developed and established as the foundation for farming systems recommendations for a technology for cultivating agricultural crops on irrigated lands in the principal and post-harvest sowings, improving the structure of the areas under crops; efficient irrigation regimes for all crops taking into account the biological peculiarities, weather conditions and the land reclamation situation on irrigated tracts. A state standard has been created for irrigation water and two highly productive alfalfa varieties of the intensive type have been bred and regionalized ahead of schedule -- Nadezhda and Sinskaya, with a seed productivity of 8-10 quintals per hectare and a fodder productivity of 750-800 quintals per hectare. Industrial technologies for the production of tomatoes and soybeans have been developed and introduced into operations.

On irrigated lands in Kakhovskiy Rayon, where the scientific institutes are carrying out studies, the planned cropping powers were achieved for all crops. Scientific workers from the institute are introducing their recommendations into operations on an extensive scale on irrigated tracts in Nikolayev and Kherson oblasts. And here the farms are also obtaining fine results.

In other words, it is possible to solve the tremendous tasks which the party has assigned to the agricultural science provided the work is carried out in an active, intelligent and responsible manner.

A most important element of the modern farming systems -- the programmed cultivation of crops on reclaimed lands. The CPSU Central Committee and the government are approaching this problem in an intelligent and yet demanding manner. The programming of yields produces the highest return from the land, fertilizers, water and other resources. Recently, the use of this progressive

method has expanded considerably. By 1990, the area for the programmed cultivation of agricultural crops will have increased to 6.5 million hectares and by the year 2000 it will have increased several times.

In view of the increasing scale of this programming effort and in the interest of preventing the use of a superficial and unskilled approach, considerable importance is attached to the thorough training of farm leaders, specialists and machine operators and to teaching them how to exercise operational control over the formation of a crop, while regulating the water and nutritional regimes of soils, based upon simple and readily available methods for controlling the status of sowings. Such training has already commenced. In 1984, with the participation of scientists, large zonal seminar-conferences were held and student training organized.

The Department of Hydraulic Engineering and Land Reclamation of VASKhNIL and the scientific-research institutes must in the future develop an entire complex for the programming of yields and with the specific production conditions being taken into account.

A more strict approach must be employed in evaluating the final results of programming. The programming of yields requires a creative attitude and strict technological discipline at all levels. Here any manifestations of formalism are unacceptable. These problems, pushed into the foreground by life itself, must be the object of unremitting control by the scientific-research institutes and agricultural and land reclamation organs.

The creation and introduction of intensive varieties which meet the conditions for land reclamation farming are considered to be decisive factors for raising the effectiveness of use of reclaimed lands. A great amount of attention is being given to the breeding of agricultural crops throughout the country. Fifty two breeding centers have been organized. The majority of them have modern equipment at their disposal. Three large phytotrons have been built. A strong domestic gene fund for cultivated plants, consisting of more than 350,000 specimens, has been formed. Many scientist-plant breeders have undergone training. All of this made it possible to continue the plant breeding process on a large scale and to intensify it and place it on a strong scientific and technical basis.

In the future we must do everything possible to strengthen on a continuing basis the logistical base for the plant breeding centers, introduce computerization into all breeding elements on an extensive scale and create in a more rapid manner the all-union automated system for the registration, storage, distribution and use of the gene fund for agricultural plants. Such a system is capable within a matter of minutes of supplying the plant breeding centers with all of the necessary information concerning the storage of seed specimens in a bank. Similar national automated systems are already in operation in countries having highly developed field crop husbandry operations and this is promoting an acceleration in the entire breeding process in the breeding of new varieties and hybrids.

Each year we regionalize more than 200 varieties and hybrids of agricultural crops and the areas occupied by new grain crop varieties are being expanded by

5-6 million hectares. In recent years, 37 varieties of winter wheat, 11 varieties of spring wheat, 43 hybrids and varieties of corn, 17 varieties of barley, 15 varieties of soybeans and alfalfa and a number of varieties for other crops have been regionalized for irrigated lands.

Nevertheless, during the October (1984) Plenum of the CPSU Central Committee, many of our plant breeding institutes were subjected to fair criticism. In particular, it was noted that a suitable variety of winter wheat has still not been created for the southern Ukraine or Moldavia, despite the fact that the Odessa Plant Breeding Center, the largest in the country, is located here. The kolkhozes and sovkhozes in the forest district also lack good spring wheat varieties, even though a number of large scientific institutes are found here. The corn breeding centers located in Krasnodar Kray and the southern Ukraine are still not achieving high results. The rice and alfalfa varieties are in need of renovation.

The interests of production dictate a persistent need for delivering in a more rapid manner varieties which respond better to irrigation and fertilization and which are capable of forming high quality grain and feed. The program for creating short-stalk varieties of spring and winter wheat for irrigated lands has proved its worth. The semi-dwarf varieties of such plant breeders as VASKhNIL academicians F.G. Kirichenko and I.G. Kalinenko have a potential productivity under irrigation conditions of 80-100 quintals per hectare or more. But these varieties are in need of improvement; they must have greater immunity and the quality of their grain needs improvement.

All of the varieties created for irrigated and drained lands must be distinguished by a high coefficient of energy effectiveness and be suitable for cultivation using intensive technologies; the scale of use for grain crops already amounts to approximately 17 million hectares and in the future it will reach 45-50_million hectares. The Board of USSR Minselkhoz /Ministry of Agriculture/ and the VASKhNIL Presidium, during a joint meeting, discussed this problem in detail and they issued sharp complaints against the leaders of the scientific-research institutes of agriculture for the southeast, the central regions of the nonchernozem zone, the Altay Scientific-Research Institute of Farming and Plant Breeding, the Krasnoyarsk Scientific-Research Institute of Agriculture and some plant breeding centers, for large shortcomings in their work and they defined measures for correcting them. In addition, they tasked the VASKhNIL branches and the republic ministries of agriculture with correcting the status of affairs in a decisive manner.

In addition to the traditional methods, extensive use should be made in the plant breeding process of such new methods as cellular breeding, polyploidy and chemical and physical mutagenesis. Every attempt should be made to ensure that appropriate laboratories or groups of researchers who underwent thorough training in institutes of the USSR Academy of Sciences and foreign scientific institutes are organized in all of the plant breeding centers. Extreme importance is attached to combining the efforts of VASKhNIL scientists and the scientists of the biological institutes of the USSR Academy of Sciences and the USSR Minvuz /Ministry of Higher and Secondary Specialized Education/, for the purpose of creating basically new engineering-genetic methods and more stable initial material for plant breeding purposes.

At the same time, a need exists for reorganizing seed production operations and converting it over rapidly to an industrial basis. This will make it possible to introduce new varieties into production at accelerated_rates. USSR Sortsemprom /Varietal Seed Raising Production Association/, the union republic ministries of agriculture, branch and zonal scientific-research institutes, scientific production associations, training farms and seed production farms must actively continue to strengthen and develop the base for industrial seed production for grain, forage and other crops. Throughout the country, 2,693 seed plants and technological lines have been built and placed in operation. The USSR Ministry of Agriculture will in the future continue to carry out work in this direction. But the work will not move forward if the scientific institutes, scientific-production associations, experimental-production farms and experimental stations continue to tolerate disruptions in fulfillment of the plans for producing elite seed for new varieties and if they fail to adequately supply the seed production farms with such seed.

VASKhNIL, its regional branches and the leaders of institutes, scientific-production associations, VUZ's and experimental stations must exercise constant control over this work so as to ensure that the new varieties are introduced into operations not more than 3-4 years following regionalization. Such experience has been accumulated in Belorussia, Omsk Oblast and in the Bashkir ASSR. It must now be disseminated to other regions. One of the chief tasks of our science is that of constantly improving the varietal structure for agricultural crops on irrigated and drained lands. The conditions are available for carrying out this work and maximum use must be made of them.

The scientific institutes must devote considerably greater attention to a number of problems: the technology for producing field crop husbandry products on improved tracts, combating water and wind erosion, minimalization of cultivation work on reclaimed lands and determining the dosages and norms for applying mineral fertilizers. Quite often the scientists recommend so-called average or rough mineral fertilizer norms without adequately taking into account the condition of the soil. As a result, the effectiveness of use of the fertilizers is not in keeping with the normative indicators. The Department of Farming and Use of Chemical Processes of VASKhNIL, VIUA /All-Union Scientific Research Institutes of Fertilizers and Soil Science/ and other institutes must define more precisely and as rapidly as possible the recommendations for fertilizer usage, the implementation of which will make it possible to compensate for the withdrawal of nutrients from the soil and to employ the programming of yields on an extensive scale. Greater demands must be placed upon the agricultural organs and farm leaders and specialists with regard to the introduction of scientific recommendations into operations.

Substantial corrections must be introduced into the integrated systems for protecting crops against pests and diseases on reclaimed lands. The All-Union Scientific Research Institute for Plant Protection and the zonal institutes are still carrying out only weak work in this regard.

The campaign to raise the effectiveness of reclaimed lands must commence with the restoration of order, as the saying goes, in one's own home. The zonal scientific-research institutes must establish their own experimental-production farms as clear examples of how to obtain high agricultural crop yields from

irrigated and drained tracts of land. For it is here that new varieties, industrial and intensive technologies and efficient labor and production organization should first of all be introduced into operations on an extensive scale. Unfortunately, not all of the experimental-production farms serve as standards. Quite often they obtain lower grain yields under irrigation conditions than do the kolkhozes and soykhozes.

Today we have at our disposal everything that is needed for converting the experimental-production farms into truly exemplary and leading enterprises, where personnel can receive training in all new and progressive developments on a rayon, oblast and republic scale. This is the direct responsibility of the VASKhNIL branches and the zonal scientific-research institutes.

A rapid and effective solution is required for the problem of improving the system of machines for reclaimed lands. The VASKhNIL branches of an engineering profile and the sciencific workers attached to the mechanization departments of agricultural VUZ's must intensify their work concerned with creating equipment characterized by a low specific pressure on the soil, a raised productivity and an improved design for the working organs making them more suitable for operation on irrigated and drained lands. A system of machines for use on reclaimed fields is required for production of erations -- multiple-purpose units, wide-swath chisel plows and deep rippers for drained lands having closed drainage, multiple-stage and other types of plows for the tilling of solonetz soils, cutting machines for overgrown peatbogs, the removal of rocks and the utilization of lightly forested areas.

More active work should be carried out in connection with the creation of interchangeable working organs for soil cultivating and other items of equipment, thus making this equipment readily adaptable for use in reclamative farming.

A serious approach should be employed when improving the sprinkling machines and units being produced by industry, such as "Fregat," "Dnepr," "Volzhanka" and "Kuban", improving their quality and reliability and lowering the cost. A mobile sprinkling machine is required for the nonchernozem zone of the RSFSR, where wide-swath machines are economically unprofitable on light-contour tracts. An urgent requirement exists for creating technical equipment for finely dispersed sprinkling in a dry climate.

The scientific engineering forces are still not always defending their positions in a competent manner in connection with the development of a new system of machines and organizing their production or in the modernization of equipment. The Department of Mechanization and Electrification of VASKhNIL and the All-Union Scientific-Research Institute for the Mechanization of Agriculture must display a greater degree of persistence and competence if their contribution towards the creation of machines both for reclaimed lands and for agriculture on the whole is to be both worthy and decisive.

The effectiveness of land reclamation is determined to a considerable degree by the scientific-technical level of the irrigation and drainage systems. The fundamental works of Soviet scientists have for the most part created a firm scientific foundation for planning and constructing them. But in a number of areas the work did not proceed in the absence of miscalculations and mistakes.

Thus the irrigation systems in Kherson, Dnepropetrovsk and Zaporozhye oblasts tolerated an underflooding of chernozem soils over large areas. For the central Asian republics, there is no clear basis for mastering new and difficult-to-reclaim lands. The scientific recommendations for irrigating chestnut and chernozem soils, which are distinguished by unstable soil-formation processes during reclamation, require considerable revision.

In the Central Asian republics an Kazakhstan, a considerable amount of manual labor is employed for carrying out surface waterings. This type of watering is used most extensively throughout the world. In many countries it is mechanized through the extensive use of pipes, chut's and mobile and easy to dismantle pipelines. Our scientific institutes and planning institutes must overcome sluggishness in solving this urgent problem. During the 12th Five-Year Plan, we must raise sharply the level of mechanized irrigation. Importance is attached to making extensive use during waterings of micro-processor equipment and miniature electronic computers and to intensifying the study and introduction of information-advisory systems for the programmed control of an irrigation regime for agricultural crops.

The kolkhozes and sovkhozes are sustaining considerable water and crop losses as a result of disruptions in the watering schedules and norms. The farms need reliable instruments and equipment for exercising operational automatic control over the availability of moisture for the sowings and over the formation of the crop. The scientific institutes and industry are still under an obligation to practical experience. Here there is a broad field of activity for our scientists.

The principles for automatic control over the regimes for irrigation and drainage should be worked out first of all at model proving grounds and experience accumulated for the purpose of subsequently converting it over to the creation of large-scale automated systems. The construction of proving grounds has been started by the USSR Ministry of Agriculture, the USSR Ministry of Land Reclamation and Water Resources and VASKhNIL and yet the work needs to be accelerated. The appropriate main administrations of the ministries and scientific institutes must exercise daily control over the carrying out of this important task.

Large-scale scientific problems remain to be solved in the area of drainage reclamation. The chief concern here -- the creation of modern systems having two-way control over the water regime. Their proportion is still negligible, including in Belorussia and the Baltic, where they are still being introduced into operations.

The drainage norms are not being corrected adequately in keeping with the type of ground, weather conditions, crops and varieties. There are no specific recommendations for planning or for the construction technology for closed drainage using the progressive non-trench method, especially for weak-filtering soils. Better results must be achieved from the creation of closed systems using plastic drainage. Such systems raise labor productivity and accelerate the return from capital investments for their construction.

In the case of the nonchernozem zone, special importance is attached to furnishing and mastering in all areas effective methods which will make it possible to fully protect the fertile humus layer of soil during reclamation.

A priority task of science and practical work is that of modernizing existing land reclamation systems. More than 6 million hectares of irrigated and drained land are in need of modernization. Approximately one third of all capital investments allocated for land reclamation will be employed for carrying out this plan. The priority order for measures aimed at renovating the reclamation systems must be established in a correct manner and the creation of scientifically sound methods for determining the need for modernizing them and the norms for carrying out this work must be completed on an urgent basis.

The scientifically sound modernization of irrigation systems must be directed towards raising their water availability, the desalinization of land, improving the leveling off of fields, introducing mechanized methods for mechanized waterings and reducing sharply the water losses during filtration. Wherever possible, drainage systems should be converted over to a two-way moisture regime, closed drainage must be installed and high quality reclamation should be ensured for heavy loam soils.

The principal strategic condition for the effective use of all expenditures for land reclamation construction -- completeness in the carrying out of all measures. This is the central element of the technical policy for land reclamation.

During the October (1984) Plenum of the CPSU Central Committee, it was stated that an overall approach is needed for all work associated with the entire cycle of land reclamation -- from the selection of an installation to obtaining the planned yield. From the very beginning, aquicultural construction, land development and the installation of facilities for farms on these lands must all be interrelated.

Unfortunately, by no means is this requirement always being met either in scientific studies or in land reclamation construction practice. All-round land reclamation requires considerably greater specific expenditures per hectare of agricultural land, but in the final analysis it will provide full compensation in the form of high quality products, make it possible to solve successfully the production, economic and social-domestic problems and promote the reliable retention of personnel in the rural areas.

Tremendous resources are being expended for land reclamation in our country and they will increase in the future. And we cannot remain indifferent with regard to the return from capital investments in the form of products. The economics of land reclamation construction and the efficient use of restored tracts must constantly be the objects of attention by our agrarian economists.

Special importance is attached to selecting the priority trends for capital investments, with the specific conditions for agricultural development in the rayons, oblasts and republics being taken into account. In order to obtain the greatest yield in products and the highest degree of production effectiveness on reclaimed lands, science must state clearly where the resources should ideally be employed.

The scientist-economists are under an obligation to actively ensure that the progressive forms for labor organization and wages, particularly the brigade

contract, are employed in production. Its main advantage lies in the fact that it eliminates the absence of personal responsibility in the use of land, equipment and other resources, it opens up broad opportunities for raising labor productivity and the material interest of personnel, as well as collective responsibility for the final results, and it makes it possible to carry out production operations based upon the principles of complete cost accounting and self repayment.

The solutions for the land reclamation problems are inseparably associated with the ecological problems. In carrying out the restoration of land, we come into contact with nature in one way or another and thus we must proceed very cautiously and exercise a great amount of discretion, we must not tolerate hasty or poorly thought out decisions and we must live not only for today but also for tomorrow.

The scientific institutes must exercise constant control over those processes taking place in the soil, water and air and they must prevent the adverse consequences that can arise from the use of chemical and hydraulic engineering land reclamation procedures. In the scientific programs for protecting the environment, priority attention must be given to the development of soil-protective and energy-conserving farming systems for use in various regions of the country. This is the basic strategy for the use of measures aimed at protecting nature in agriculture.

The responsible tasks assigned to production and science by the October Plenum of the CPSU Central Committee have imposed very high requirements upon our personnel. Success is determined entirely by the level of their training and retraining. In recent years, definite steps have been taken aimed at assigning skilled specialists to the scientific-research and planning institutes and supplying them with modern equipment and instruments. This has brought about a considerable increase in the methodological and scientific-theoretical work levels of the scientific institutes. However, many important sectors of science are today experiencing an acute need for fresh forces -- competent and purposeful workers, leaders characterized by broad vision and modern economic thought and capable of heading important elements of scientific search and introducing their achievements into production operations. The attention of VASKhNIL and its Presidium must be concentrated on the selection of such personnel.

A requirement exists in this regard for improving considerably the training of candidates and especially doctors of science, selecting talented youth for science and creating conditions for their creativity. In this manner the young and promising workers in all sectors will be able to work and acquire hardening hand in hand with recognized scientists.

A creative climate must be created in a scientific collective such that each scientist considers it his obligation and direct responsibility to constantly maintain active communications with the kolkhozes and sovkhozes, to display great initiative and persistence in introducing completed scientific recommendations and to wage an irreconcilable campaign against sluggishness and conservatism and deviations from the norms for socialist morals and ethics.

Speechifying, excessive fanfare and sensationalism must be eradicated in a decisive manner, creativity must not yield to excessive paperwork and an atmosphere of exactingness, efficiency and high principles must be created in all areas. All of this means that improvements must be carried out in the style, forms and methods of work being carried out at the scientific-research institutes.

Recently the Presidium of VASKhNIL has begun to undertake more active measures aimed at improving the work of the academy's staff, its branches and all of the scientific-research institutes. This is beginning to have a positive effect on the level and effectiveness of management of the scientific institutes. The positive trends in the work of VASKhNIL and its Presidium must be developed in an active manner. The clear instruction handed down by the General Secretary of the CPSU Central Committee Comrade M.S. Gorbachev during the April (1985) Plenum of the CPSU Central Committee, stating that we are obligated to achieve the scientific-technical renovation of production within a brief period of time and reach a high world level in the productivity of social labor, must serve as a program reference point.

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